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Serials

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Biological  
& Medical  
Serials

FEBRUARY, 1901.

# THE OPHTHALMIC RECORD

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The March number of the OPTHALMIC RECORD will contain amongst others, an original article by M. F. Weyman, M. D., "A case of noncomitant Ribbon-like Keratitis with remarks;" one by M. W. Zimmerman, M. D., "A case of left homonymous hemianopsia, probably hysterical;" one by Charles F. Krauskoff. "Some results of Dr. Allport's sight test applied to Chicago School Children." There will also appear Editorials, Reviews, Abstracts, Society Reports and Personals and Items of Interest to the profession.

The RECORD particularly desires short practical papers on any subject connected with Ophthalmology. These will be published as early a date as possible. It is understood that, unless otherwise arranged, original articles when accepted are contributed to the RECORD exclusively. Illustrative cuts will be made at the expense of the journal, and proofs for correction will be sent to authors when desired. Reprints with covers are furnished at cost. One hundred of these will be presented to authors *gratis* when a request for them is written on the original manuscript. The RECORD will be issued monthly, and each number will contain about 54 pages of reading matter.

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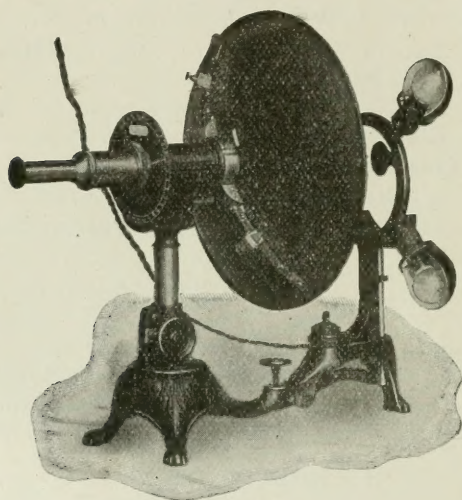


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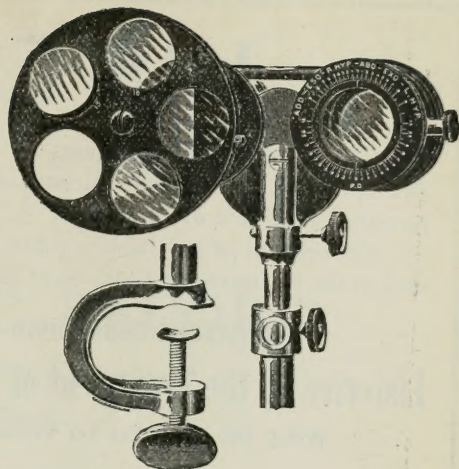
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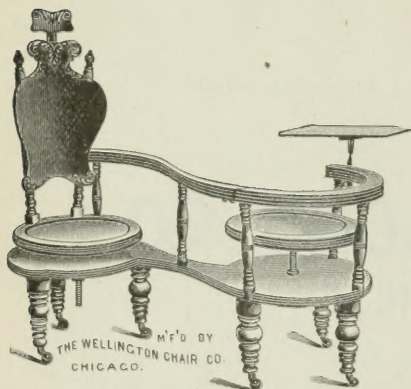
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# THE OPHTHALMIC RECORD

*A MONTHLY REVIEW OF THE PROGRESS OF  
OPHTHALMOLOGY.*

VOLUME X.

CHICAGO, FEBRUARY, 1901.

No. 2. NEW SERIES.

## ORIGINAL ARTICLES.

### A MOST SIMPLE AND EFFICIENT EYE DRESSING AND A BANDAGE THAT WILL STAY.

By M. F. WEYMANN, M. D.

Professor of Ophthalmology and Otology, Central Medical College.

ST. JOSEPH, MO.

In dressing an eye I have for some years discarded everything in the way of material except cotton.

From a layer of an absorbent cotton roller I pull a piece about 3 inches long and 2 inches wide. Of this detached portion I use only  $\frac{1}{2}$  or  $\frac{1}{3}$  its thickness (easily lifted off in a good grade), which I place upon the solid part of the palm of my hand. About two drachms of a saturated solution of boracic acid is then poured upon it and spread with the fingers of the other hand. The excess is removed by gentle compression between the palms of the hands until all dripping ceases, although the cotton is left well moist. By placing it upon the closed lids the outlines of the orbit are impressed upon it, according to which it is trimmed with the scissors. Folding for that purpose is inadmissible, as it interferes with the perfect evenness of this antiseptic pad. After 24 hours' wear this pledget will show a saturation of the acid powder not only in its fibers, but also upon the underlying skin. Those who, from extensive use, are acquainted with this ideal ophthalmic antiseptic will fully appreciate its perfect antisepticing power and entire freedom from irritating qualities.

Upon this first pad is placed cotton pulled from a roll, q. s. to fill up the orbit according to the judgment of the oculist. All pieces should

be *pulled* or *teased* to proper shape, never folded. Except in a pressure bandage the cotton should not overreach the bony limits of the orbit.

The staying qualities of the bandage to be described depend upon two factors, viz.:

- (a) points of anchorage, and
- (b) the juxtaposition of two opposing tendencies.

The points of anchorage are:

1. The upper junction points of the auricle and head on both sides.
2. The lower junction point of auricle and head on the side of the affected eye.
3. Certain places in which pins unite all turns of the bandage.

A bandage around a globular body above the equator tends to slip upward; one below, downward. For present purposes the head may be considered a globe with its equator passing through both eyebrows and the external occipital protuberance. Any turn of muslin above this tends to slide *up*; one below, *down*.

The best width of the bandage is two inches, a convenient length 4 yards.

Start the roller on the forehead, median line, to and go around the head *away* from the eye to be bound up. A  $1\frac{1}{4}$  turn will bring you to the ear on the unaffected side with the roller overlapping the first quarter of its starting turn. This first "securing" turn should have its lower edge against the upper junction points of auricle and head, hence not cover any part of the external ear. This *makes slipping down impossible*. It should also pass the external occipital protuberance with its lower margin, which also opposes slipping down, but favors working up.

Before beginning the second (or lower) "securing turn" draw the bandage tight enough to make circular slipping around the head impossible. Now, from above the auricle on the sound side, pass downward and backward around the back of the head, below the external occipital protuberance and in the notch made by the junction of the muscle of the neck and the cranial bones. Thence pass close under the ear of the affected side, taking care not to cover the lobule of the auricle. This *makes slipping up impossible*, as the turn is thus anchored by the auricle. From this point pass over the face in a nearly circular turn, the median border of the bandage striking the nose about the lower end of the nasal bones. As this turn covers the larger part of the

dressing, the surgeon draws it tight so as to satisfy his notion as to the amount of pressure desired and then folds the bandage as it crosses the first turn on the forehead so as to conform to *its* direction. (The fold falls above the internal canthus of the untouched eye where, in case of class instruction, I often have it pinned down temporarily.) Above the ear on the unaffected side, the third turn covers completely and perfectly all preceding ones, but as it continues backward it is made gradually to overlap upward until half of its width projects above the preceding turn on the occipital bone. In this manner it is continued to the forehead, thus covering the ear of the affected side (reaching a little below its lobule), and also all the dressing in the orbit. A fold on the forehead may introduce the next turn, but I usually avoid it by simply rounding the path of the roller. Two more turns are made in this quasi concentric way, when the affected eye and the ear on the same side are thoroughly covered while the auricle on the other side stands out in full.

*Plain* pins are now passed to prevent any displacement in the relative position of the turns. They should penetrate *all* the turns, be made to emerge twice, stand vertical, with points down and well concealed. Points of insertion: One over the ear of the healthy side; one on forehead, fixing well the place where the bandage is folded and turned; one in front of the covered ear and one behind it (on different levels), one on each side of the occipital protuberance. The aim is to fix all turns to the upper and lower securing runs, which are *fixed* in their position.

To facilitate pinning together, the bandage roller should consist of loosely woven texture.

This bandage holds equally well on the heads of women, if the hair is dropped down and the lower securing turn passed below it. Some patients complain about pain from compression of the covered auricle. This can be remedied or mitigated by a layer of absorbent cotton between the auricle and the skin of the head. Occasional tenderness of the forehead is eased in the same manner.

---

We have received the following letter from Professor Adelham: "I beg leave to announce the opening of the Moskow Municipal Ophthalmic Hospital, which took place Nov. 29 last. This hospital was erected

with money provided by Madame Barbara Aleseewa. There are fifty-four beds, divided among three departments—for children, women and men, as well as a well-arranged and isolated dispensary. The hospital will be maintained both by the city and by the Aleseewa fund.

---

## EXTRACTION OF IRON FROM INTERIOR OF THE EYE BY THE HAAB ELECTRO-MAGNET.

By N. J. WEILL, M. D.,

PITTSBURG, PA.

The extraction of splinters of steel or iron from the interior of the globe of the eye with the *Haab Giant-Magnet* is now a frequent occurrence; it being an instrument widely employed. The question of its superiority over the smaller, less powerful eye-magnets, for example Hirschberg's, Schloesser's, or Johnson's, has been the subject of considerable discussion. By some its non-portability is regarded as objectionable, by others its magnetic force too powerful, etc. With reference to this latter objection, a case which occurred in my practice some months ago may show in a measure the desirability of a giant-magnet.

J. R., machinist in a boring-mill, on Dec. 12, 1899, in attempting to place a key (wedge-shaped piece of iron) behind a cutter (used to bore a hole) to hold the latter in the slot of the bar, missed striking the key with his hammer (steel), struck the cutter close to its cutting edge, when, as he believes, parts of this portion of the cutter flew off and against his right upper eyelid and eye.

Patient consulted me about five hours after the injury and gave the above description of the accident.

Examination of the right eye and surroundings reveals: A small wound of the free edge of the upper eyelid, also a similar lesion in the supraorbital region; slight ciliary injection; a small perforation of the sclerótica, scarcely one millimeter in length, situated about three and one-half millimeters to the temporal side of the cornea and two millimeters below the center of the pupil; the pupil horizontally oval (the left pupil approximately round) reacts to light and dilates readily to atropia. Careful ophthalmoscopical search found nothing abnormal. No foreign body or semblance of the same discernible in the clear vitreous humor.

After the usual antiseptic preparation of the part and instillation of cocaine into the conjunctival sac, the wounded region of the sclerotica was gradually neared to within about one millimeter of the cleansed point of the *Haab-Magnet*, a weak\* current being employed. Patient felt nothing. A stronger current used in the usual way (making and breaking the current and changing the poles); no change. It was not until the strongest current, which my *Haab-Magnet* can produce, was applied to this part at a distance of about one millimeter, when fully one minute elapsed before the splinter moved out of the original wound in the sclerotica, pierced the conjunctiva before it and adhered to the point of the magnet. The piece of steel is roughly oval in form, has sharp ends, is scarcely  $\frac{3}{4}$  millimeters in length at its broadest part about  $\frac{1}{2}$  millimeter in width, and weighs 0.5 milligramme.

The pupil was kept dilated with atropia on the two days succeeding the extraction. On the fifth day from the time of the injury the eye was absolutely quiet and the vision normal with a stenopaic lens. *June 14, 1900.*—Have seen patient this day and found the vision normal. Even the scleral scar could not be located.

---

The last number (6) of the *Annali di Ottalmologia* has appeared, with the announcement that in future it will be published as a monthly periodical. We congratulate the management of this old (founded by Prof. Quaglino thirty years ago) and valuable journal on the new departure and believe that it will more than maintain its past reputation.

---

Dr. George M. Gould, of Philadelphia, has retired from the editorial management of the *Philadelphia Medical Journal*. His work will be carried on by John Hendrie Lloyd and Dr. Julius L. Salinger. Dr. Gould proposes to establish a new weekly medical journal, and has sent out circulars to the profession requesting their co-operation and inviting them to become shareholders.

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\* By the aid of a rheostatic arrangement attached to my *Haab-Magnet*, the strength of the current of the magnet can be broken into four parts; thus, according to need  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  or full strength may be employed. In any case the weakest or  $\frac{1}{4}$  strength current is first used. The drawing capacity can be expressed as follows: When  $\frac{1}{4}$  strength of the magnet is in operation a piece of sheet iron one gramme in weight should support eighty four gr-ammes with a piece of wood five millimeters in length interposed between the gramme weight and the point of the magnet; one half strength 168 grammes;  $\frac{3}{4}$  strength 253 and full strength 537 grammes.

## A NEW SKIASCOPIC MIRROR.

WILLIAM E. BAXTER, M. D.

BOSTON.

The mirror about to be described has been in use by the writer for several years with so much satisfaction that its lightness and elegance merits a description. The mirror is constructed of two thin circular plates of glass 36 m.m. in diameter—the size to fit into the  $1\frac{1}{2}$ -inch trial lens ring—one of these plates is silvered in the center, making a mirror 20 m. m. in diameter; the sight hole being formed by removing the silvering for the space of 2 m. m. in the center. The plate is then painted black over the whole extent, with the exception of the slight hole, thus rendering the glass external to the mirror opaque. The other plate of glass, which may be plane or may be the correcting glass of the user, is placed over the first plate, forming a *backing* to it, and also protecting the sight hole from dust, as suggested by Dr. Edward Jackson. The two plates are fastened together by means of a light nickeled ring such as is used on trial lenses, and the ring fastened into a small octagon metal handle.

It is suggested by Dr. C. W. Prentice that on account of its lightness this mirror could be mounted in a spectacle frame and motion imparted to the shadow by the well-known method of slightly moving the body *or head*.

The mirror was made by Queen & Co..

---

At the last meeting of the Chicago Ophthalmological and Otological Society, the following officers were elected: President, Dr. Casey A. Wood; Vice-President, Dr. W. H. Wilder; Secretary and Treasurer, Dr. C. P. Pinckard.

---

We reproduce a letter received by a Chicago optician from a spectacle dealer in Florida:

Dear Sirs: I am enformed that you deel Whoah Seal in the Spectacials business if sow give me your whole Seal price for a good article and one not quite as good I am selling house hold goods and I am asked often if I have that line of goods I dont want to sell enfearer article a fare good artel.

Yours truly,

X

Dr. Dudley S. Reynolds, Louisville, according to the *Louisville Monthly Journal of Medicine and Surgery*, has obtained a verdict of \$9,166.66 damages against the Louisville & Nashville railroad for injuries sustained from a lump of coal which fell from a car of an express train as it passed the platform on which he was standing, striking him in the abdomen, just above the pubes, and inflicting injuries from which he is still suffering.

---

### CASE OF HEMORRHAGE FROM THE CONJUNCTIVA IN AN INFANT.\*

HOWARD F. HANSELL, M. D.

PHILADELPHIA.

The patient, Ethel Keys, negro, was admitted to the Philadelphia Hospital on the 9th of July, 1900, and died on the 13th of August. The primary diagnosis was marasmus. I was invited to see the patient by the resident physician, Dr. Fisher, at the request of Dr. Geo. I. McKelway, on the 25th of July. The child was born at seven months and admitted at the age of one day, weighing three pounds, three and a half ounces. The father and mother were living and apparently in good health. The mother reported that she bled excessively from very small wounds; other than this there is no definite history of hemophilia in the parents, brothers or sisters. When three days old the left eye became swollen and discharged a small amount of thick pus. The cornea was partly opaque. The purulent discharge ceased in a few days after irrigation and ice compresses, and was replaced by a bloody discharge of serum and at times of almost pure blood, which seemed to ooze from the conjunctiva. The lids were slightly swollen and the conjunctival surface red and velvety. From the 25th to the 30th of July there was a constant discharge of blood, apparently from the conjunctival surface of the upper lid of the left eye. The blood could not be seen to emerge from isolated points, but the whole surface seemed to be the source of the hemorrhage and was constantly bathed in blood that was so abundant that it was discharged from the commissure and ran onto the face. After five days' use of a solution of alum the hemorrhage ceased and the swelling of the lids had disappeared. At this time

\* Read before the Section on Ophthalmology, College of Physicians, Philadelphia, Nov. 20, 1900.

there was a small superficial ulcer on the cornea about the size of a pin head. The temperature chart showed the temperature, on admission, to be 97.4 degrees, and it ranged between 97 degrees and 98 degrees until the 23d of July, when it fell to 96 degrees, and the next ten days ranged from 96 degrees to 104  $\frac{2}{3}$  degrees, sinking to 97 degrees shortly before death. The blood count showed 5,540,000 red corpuscles and 5,600 white corpuscles. Enough blood to test the percentage of hemoglobin could not be obtained. Although the infant was put in an incubator and the temperature maintained at 99 degrees, and although it received nourishment and stimulation, it gradually wasted until at its death it weighed only two and three-quarter pounds.

Abbe's case of fatal hemorrhage from the conjunctiva (*Annals of Ophthalmology*, Jan., 1899), was identical in many respects with that above recorded. The infant was born at full term and weighed five pounds. On account of swelling of the left upper lid, and then in succession the lower lid and the lids of the right eye and the discharge of a small amount of straw colored fluid, he made an application of 6 percent solution of silver, meaning to apply 2 percent only. In his remarks he queries whether the strength of the solution had a causal relation to the hemorrhage. The palpebral surface of each lid was overlaid by a dark purple rough mass, from every part of which blood was emitted. A pressure bandage failed to check the hemorrhage, and became soaked with blood in 12 hours. Death ensued in 2 days. The pulpy mass was easily torn from the conjunctiva and consisted mainly of blood clot. He refers to reports of 5 cases of Jessop (*Trans. Oph. Soc. United King.*, Vol. XV), 3 of which recovered. In all, the bleeding was due to some anatomical change in the mucous membrane of the lid, such as naevus, granulation, and the like. Also, to Shirley's case (*N. Y. Med. Jour.*, Jan. 2, 1892), in which the hemorrhage commenced after scarification of the lids in a colored infant and ended fatally. Nettleship mentions (*Text-Book*) conjunctival hemorrhage in an infant recovering from purulent ophthalmitis. de Schweinitz (*Med. Rec.* No. 18, 1891) observed hemorrhage in a negro child after application of silver, 2 and 4 percent solutions, that lasted 3 days and ceased. Stoewer's case (*Deutsche Med. Wochens.*, No. 6, 1895) was a child six months old. The bleeding was preceded by inflammation. It was not profuse but was constant except during sleep. Its source was a pea-sized sessile growth about the middle of the left upper lid.

Cessation during sleep was due to the immovability of the lid and the consequent absence of friction and irritation. The growth was removed and its site curetted. The hemorrhage ceased but the child died two days later.

The influence of silver nitrate in inducing hemorrhage is uncertain. We know it is not the only cause since it had not been applied in some cases although it must be admitted 30 grains to the ounce solution might cause considerable degree of traumatism. Moreover, it is possible that in the application of silver and other medicaments the lids were unskillfully everted, as in an infant referred to me not long ago as a case of ophthalmia neonatorum that proved to be traumatic conjunctivitis and ulcer of the cornea from rough handling by the physician who attended the mother in her confinement. The most plausible explanation of the hemorrhage in my case was the exceeding debility of the infant and the preceding mild attack of purulent conjunctivitis. Although every effort was made to prolong life, by careful dieting, by stimulants and by maintaining an even temperature of 99 degrees, its premature birth, its puny size, its undeveloped organs and feeble animation, were obstacles too serious to be overcome. Abbe and Stoewer do not mention their patients' nationality, but in Shirley's, de Schweinitz's and my own cases it is a curious fact that all three were negro children, possibly indicating a greater disposition to hemorrhage than the children of white parents. Hemophilia may be excluded from consideration as a cause, since in none of the cases was this tendency clearly shown.

---

REPORT OF A DIFFERENT OPERATIVE METHOD IN THE  
TREATMENT OF TRACHOMA. WITH NOTES UPON  
THE CONSTRUCTION OF AN INSTRUMENT  
DEvised FOR THE PURPOSE.

By P. CHALMERS JAMESON, M. D.

BROOKLYN, N. Y.

(ILLUSTRATED)

The operation of "Grattage" and that of Expression as performed by roller forceps or other method of expression, are undoubtedly two of the best surgical means for the reduction of trachomatous surfaces. The only excuse the writer has for designing this instrument was the

need in his own practice for an instrument constructed upon a little more accurate basis than the tooth brush in common use for the operation of grattage, and one which while accomplishing similar results, could be graded more accurately when applied to the surface to be operated upon. An instrument which would not necessitate the use of a general anæsthetic and could be used repeatedly at successive sittings without undue reaction and without damage to the deeper or normal tissues. Also one which would rupture and extrude the contents of trachomatous granules in which modes of expression had failed in that, the trachomatous bodies were too small or their fibro encapsulation, if such be present, or other membranous or inflammatory covering was too dense to accomplish rupture. Above all, one which could be used repeatedly in practice at short intervals.

The designing of this instrument was for the purpose of meeting a requirement slightly out of the usual line of operative procedure—namely, to attack superficially and repeatedly an inflamed and thickened membrane, which not only contains trachomatous bodies upon the surface but, as is the case in most trachomatous infection, their numerous presence in the interstices or body of the membrane; and the accomplishment of this without injury or disturbance to the deeper or normal tissue. It is a clinical fact that in almost every case, no matter how thoroughly an operation for trachoma has been performed, the deeper bodies which have not altogether been eradicated appear on the surface in succession, the reason being that the superficial growth having been destroyed the inflammatory condition which surrounded it subsides and the deeper granules are permitted to appear. The aim of this instrument is to attack and disperse these successive arrivals, and by repeating this superficial “grattage” at frequent intervals finally to eliminate all granular growth, no matter whether it be situated deeply in the body of the membrane. In other words, the reduction of an inflamed, thickened trachomatous membrane containing both surface and deeper granules, by a system of gradual, frequent, superficial and modified grattage operations.

Thus the writer has been led to believe that complete reduction of a thickened inflamed trachomatous membrane to attenuated normal density can be rapidly accomplished by the use of these instruments in a comparatively short period without primarily touching the deeper

structures, and with the formation of the least possible amount of inflammatory or connective tissue.

It can be seen that the object is not the immediate extirpation of all granular growth but the repeated, successive and persistent attack upon the surface. The writer has also found three instruments to be of value as a primary operation preceding that of expression in that it ruptures the little bodies and enables the expression forceps to do their work with greater facility and effect. Although the instrument has not stood the test of time, yet a few months of active use has yielded such gratifying results that with the encouragement of some of my colleagues present to-night, who have themselves used and witnessed its work, I venture to place it before the profession with a few notes as to its construction and method of employment.

All methods in the treatment of trachoma must have for their object the reduction of the disease in the shortest period with the production of the least possible amount of connective tissue, and every instru-



ment devised for this purpose must be constructed upon the foregoing principle. The handle is short and slender, the shank being as delicate as possible consistent with strength in that, vibratory transmission from fibrous surface, guides one in the amount of pressure necessary. The blade or expanded end consists of a plain surface one-third by one-quarter of an inch, curved convexly upon its operating surface. Upon this are engrafted numerous rows of small pyramidal projections. The four sides of each pyramid slant toward its apex at varying angles. The apex of each pyramid points forward at an angle of some sixty degrees from the vertical; this arrangement is such that two of the surfaces are nearer the vertical in front, while those behind slant considerably from it. The surfaces of each pyramid at the borders where they meet form, of course, four edges extending from the base to the apex—one anterior, one posterior and two lateral. These edges, together with the sharp apex of the pyramids, constitute the active operating part of the instrument. On a surface closely studded with short pyramidal projections or eleva-

tions, there are of course a corresponding number of depressions. The instrument is placed with its operating surface against the trachomatous or granular surface; slight pressure being made the apex of the pyramids find their way and insinuate themselves between the bodies of the granules, and they (the granules) occupy these depressions. This results in immediate fixation of the instrument. Forward, backward or lateral movement at once brings the trachomatous bodies in forcible contact with one of the four cutting edges resulting in first rupture, and then extrusion of their contents. Perhaps the most striking feature is its selectiveness for the fibro granular elevations just mentioned, and contrarily the immunity that a normal mucous membrane possesses from injury by its use. The same amount of pressure necessary for it to engage and rupture trachomatous granules will, if applied to a normal lid lining, result in its gliding over with no injury to the part. This is accomplished by two factors in its construction. The marked degree of slant of the sides of the pyramids as they diverge from the apex to the base render any penetration in the mucous membrane impossible, so that there being no fixing of the point of the pyramid, nor a filling up of the depressions between them by solid resistive bodies, pressure simply results in a slight indentation; and there being no obstruction to act as a drag against the instrument in transit, it simply glides over the smooth membrane. This, of course, is entirely reversed when the depressions are filled with granular bodies, the instrument at once being "fixed" rupture and extrusion is directly accomplished by movement in any of the directions already mentioned. Another feature is that the apex of the pyramid, if the proper instrument is employed, barely reaches to the bottom of the crypt existing between the granules. To accomplish this point the instruments or their pyramidal projections have been made in four different sizes, the first being one-twenty-fourth of an inch in length from base to apex and the others a thirty-sixth, a seventy-second and a ninetyeth of an inch, respectively.

The amount of pressure applicable to each case is readily realized by the resistive nature of the granule and its fibrous quality as transmitted by impact to the hand of the operator. If an increased effect is desired it is obtained by pushing the instrument forward, a lesser by its use backward. Latterly the effect obtainable is about the same on either side, a little less than that obtained by the forward motion and

slightly greater than that accomplished by the instrument when drawn backward. A combined effect is obtained by rotary motion of the instrument. This gradation in effect of course is accomplished by the angle of deviation from the vertical of the perforating edges. The instrument is purely selective for the granule. Normal or deeper tissues are left intact. There being no well developed nerve supply to this trachomatous tissue the pain of operation is markedly reduced, cocaine being the only anæsthetic necessary. Little injury being done to normal and deeper tissues, the reaction is nil and the operation can be repeated daily if required. This of course applies alone to operable cases—namely, those in which marked inflammatory symptoms or muco purulent secretion are absent. The latter of course need to be quieted down by local medication before operation.

It is the writer's opinion that the term of duration of this disease can be greatly shortened by employing this method, and accomplished with less cicatrization than is usually the case when we rely upon local medication in the after treatment or other operative means.

To recapitulate—If this instrument as used in the method which has been already outlined has anything to commend it, it is in the following attributes:

1. Its selectiveness or predelection for the fiber granular elevated bodies and the manner in which it at once engages ruptures and extrudes their contents.
2. Contrarily, the faculty it possesses under pressure of gliding over a normal mucous surface leaving it intact.
3. Its superficial field of action and the little likelihood of cicatrization from operation, the granule only being attacked.
4. The rapidity and ease with which an entire lid surface can be subjected to operation.
5. The facility with which it can be used, a general anæsthetic not being required, as the pain is little under cocaine.
6. The frequency with which the operation can be performed on successive crops of granules, daily, if necessary, the reaction being nil in operable cases.

The instruments are made by George Tiemann & Co., Park Row, New York. 108 Pierrepont Street, Brooklyn, N. Y.

## OPHTHALMIC NOTES.

By MELVILLE BLACK, M. D.

(Professor of Ophthalmology, Gross Medical College.)

DENVER.

A boy 14 years of age was brought to me a few weeks ago who complained of his eyes paining him when using them for near work. He was found to have one-half diopter of astigmatism against the rule, with normal muscle balance. I learned while I had him under observation that he was advanced mentally beyond his years. Upon questioning him I found he was fond of study and that play had no attraction. He was to be found constantly at his books, had few companions, and never indulged in athletic sports of any kind. He came to me in the beginning of the fall, when he should have been browned by the summer's sun during the school vacation. On the contrary, he was not sunburned but was pale, with lustreless complexion. Instead of prescribing glasses for the correction of his astigmatism I advised his parents to take him out of school for two years and to force him into out-of-door life. He has been sent to a ranch with a gun and a horse, and with no books. I explained to him that he could not continue long in the way he had been going; that it was necessary that he should bring up his physical condition so that he might have some foundation upon which to carry on his mental work, otherwise he would break down both mentally and physically. One-half diopter of astigmatism was causing asthenopia. Should so small an error of refraction give discomfort in a normal subject? I should say no. In children, with their strong accommodative power, small refractive errors should not give discomfort. When they do, we should be able to find some systemic reason to account for it.

A few years ago a physician sent his daughter to me because she was complaining of pain in her eyes while at study. She was 13 years of age and gave evidence of beginning menstruation. I advised her father to take her out of school for a year, or until her menstrual periods were thoroughly established. She was found to have one-quarter dioptré of astigmatism with the rule, with normal muscle balance. This correction was not given. She has never needed it. This child is now 17 years of age and is a sound, healthy girl. She is one

year late in finishing her high school course, but she will not find this a handicap ten years from now.

A few years ago a boy 16 years of age was brought to me because of asthenopic symptoms. His error of refraction was  $+0.75 \text{ C} + 0.25$  cyl. ax. 90 in both eyes. I observed that he was listless, inattentive and morose. His mother informed me that he did not enjoy companions, and that he was not studious and was not active physically. A conversation with the lad revealed that he was masturbating, and that it was being carried on excessively. His father was directed to call, and I tried to explain the situation to him. I found he took little interest in the matter, and concluded he was unfit to deal with the boy. I saw at a glance that the mother was wholly unfitted to deal with the matter. Upon inquiry I found the boy had a maternal grandfather who was a strong character. I sent for him and explained the situation fully. He was a man who had retired from business and agreed to take the boy under his care day and night, and by the influence of his example and companionship to break him of his habit. This boy is now 21 years of age, is married, and gives evidence of being healthy and happy.

Our position as ophthalmologists is one that can be abused if we do not analyze the many cases of children who have asthenopia from small errors of refraction. It is not normal that a healthy child should have annoyance from a small refractive error. Glasses, if given, will no doubt relieve the symptoms, but they do not relieve the ophthalmologists of the responsibility of determining why this individual is in condition to be annoyed by the existing small error of refraction. We are not simply "glass fitters." There are plenty of these people who "test eyes free."

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"OSSIFIED OR CALCAREOUS EYE WITH SPECIMEN."\*

By THOMAS McDAVITT, M. D.

ST. PAUL, MINN.

Patient G. D., 30 years old, telegraph operator. Had been blind in left eye since early childhood, resulting from an attack of scarlet fever. Right eye had never given any trouble, and might never have done so had his work been different. For some months previous to operation

\* Read before Meeting of C. M. & St. P. Ry. Surgeons, Dec. 13, 1900.

right eye had been painful, and at the time he was first examined the vision was somewhat reduced from normal and evidences of sympathetic irritation were present. The left eye was seen to be blind and was also somewhat tender, with external vessels much enlarged. Enucleation was advised, and while the eyeball was evidently harder than normal the change in its condition was not suspected. On examination after operation and cutting through uveal region the posterior part of eye was found to be the specimen presented. You will notice the sclera intact, and no evidence of any calcareous degeneration. The choroid will be seen folded up in posterior portion of sclera. Immediately behind or within was found the hardened degenerated condition shown. Whether or not there was any vitreous in the hardened shell my notes do not state, nor do I remember. You will notice in the back part of the shell a small opening, which was directly opposite the point of entrance of the optic nerve. The shell extended as far forward as the crystalline lens, which was not calcified but was partially cataractous. The specimen is of interest as a curiosity. Looking up the authorities on this subject and its ætiology the scantiness of resources seem to be apparent. Suker in a very able article on "Calcareous Degeneration of the Cornea" states that such "degeneration of the iris, choroid, retina, optic nerve, lens, lens capsule sclera and ciliary bodies are not at all rare clinical observations," but that calcareous deposits in the cornea alone are rare. He states that the usual position for calcareous deposit in cornea is intermarginally, yet that it does occur in any section, central or peripheral, and it appears in patients subject to gout or an excess of uric acid in the circulation. "All degenerations of this kind are a secondary process, the eye having previously suffered from a severe inflammation. The only membrane of the eye which develops calcareous" changes as a primary affection is the conjunctivæ. This is questioned, however. Leber recognized this process in the conjunctiva in 1895.

Suker has seen this process follow Xerosis conjunctivæ, but never as a distinctive primary process. No satisfactory solution has been given the lime deposits in any of the eye structures. It almost always follows inflammatory processes which have become quiet. Suker states as plausible in corneal calcareous degenerations a preceding change in the lymph lacunæ. Whether an arterio-sclerosis or an atheromatous condition bears any relationship to this degeneration is still

an open question. Suker considers corneal calcareous deposits as a retrograde metamorphosis.

1. of corneal cicatrices or opacities.
2. of degenerative changes in inflammatory deposits.
3. of a long standing pannus thoroughly vascularizing the cornea.
4. of a cornea abused by *argentum nitricum*.
5. of results of injuries.
6. Sequellæ of irido-cyclitis and keratitides.

The lime deposit occurs as a rule between Bowmans layer and the external epithelial membrane of cornea, rarely between Bowman's and Descemet's layer. Von Graefe reports a case in which this condition of the cornea was primary. He says such corneæ invariably give rise to glaucoma. Suker suggests that in this case the glaucoma had been insidiously established and the calcareous degeneration masked the true primary glaucomatous process, and claims the process is always a retrograde metamorphosis and consequently must be secondary. The treatment is unsatisfactory as far as stopping the process is concerned, and active interference seems to increase the tendency to hasten the degeneration.

Critchett and Snell state that rarely osseous or fibro osseous tumors are found in the conjunctiva, and are usually if not always congenital. Calcareous formations in the meibomian glands are of not rare occurrence. In calcification within the capsule of the lens it has been the accepted theory that this change did not take place unless there had been a rupture of the lens and escape of the lens substance and the lime salts were deposited afterward. Stricker disputes this teaching, and describes a case reported by Steffan, who delivered to him the specimen. Right eye had been enucleated on account of irido-choroiditis. There was a cataract capsularis accreta. Retina totally detached and space between choroid and retina filled with cholesterine crystals. Microscopically the entire anterior and posterior capsule was covered with a capsular cataract. At some points particles of amorphous chalky microscopical granules were deposited. These particles gradually displaced the nuclei. Almost the entire space within the capsule sac not occupied by the capsular cataract is filled with the chalky deposit. In this case entire calcification of the lens ensued, without a rupture of the capsule taking place. Stricker affirms that "the deposit of lime salts within the capsular sac occurs most frequently

where the cataract occurs consecutive to some previous disease of the eye which has led to permanent firm adhesions between the lens and pathological vascular tissue, the lime deposit occurring first in the new formed tissue, which is derived from the hyperplasia of the intra capsular cells. Not infrequently the deposit does occur in youthful individuals who have suffered destruction of deep seated structures of the eye, or where the lens is fixed by a simple sychia and the deposit is not preceded by an extensive capsular cataract. The deposit takes place first on inner surface of epithelium of anterior capsule and pseudo-epithelium of posterior capsule extending gradually from periphery to center of lens. A total calcification always requires months and years of time.

Stricker makes a decided distinction between ossification and calcification of the lens, and denies the proposition that true bony substance can be found inside of an unruptured capsule. Becker thinks it impossible unless capsule has been ruptured and lens evacuated. That true bone can be found within the ruptured capsule is not denied.

*Choroid.*—In complete calcareous or ossified casts of the eyeball authorities are generally agreed that the primary degeneration is in the choroid. Jackson states that in eyes long blind and degenerated calcareous change is often found in the choroid, and sometimes the choroid is replaced by true osseous tissue, so extensive at times as to be detected by pressure on globe. "Griffith, in Norris and Oliver System of Diseases of the Eye," says extensive formation of true bone in connection with choroid is found in eyes that have been lost for many years. The mass of bone lies on the inner surface of the choroid, and may form a complete cup, perforated behind by the stalk of the detached retina, open in front, the brim extending just as far as the true choroid; the outer surface of the bony shell will be found comparatively smooth and closely adherent to the choroid, the inner surface being rough and shaggy looking. It has throughout a brownish color. According to Brailey, the osseous deposit occurs mostly on the retinal surface of the lamina vitrea, and when, as rarely happens it does occur within the choroid, it extends no deeper than the chorio-capillaris. Griffith has seen bone develop around a piece of metal in the eye. He states that at least fifteen years are necessary to produce large shell-like pieces of bone, but the small plates are produced within three years. He states that sympathetic ophthalmitis is rarely if ever

set up. I have seen several cases of calcification in region of lens capsule and thin shells of the eye, but none so thick and extensive as the specimen shown. All the cases I have seen have been in eyes lost in childhood, and it has been something of a question whether the non-development of the eye at the time of the pathological condition causing its loss of function might not be a factor in the ætiology. As yet the specimen has not been examined microscopically, and we are not able to tell whether it is calcareous or bony degeneration.

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#### LISTING'S PLANE.—A REPLY TO DR. HAROLD WILSON'S CRITICISM.

By G. C. SAVAGE, M. D.

NASHVILLE, TENN.

In number 12, volume 9, of this journal there appeared a criticism of what we said on Listing's plane in an editorial in number 9, volume 9. Dr. Wilson, in this criticism, first takes us to task for saying that every possible rotation of the eye, according to Listing, must be on an axis in Listing's plane. He asserts that we had no ground for stating that Listing, or any author following him, had ever taught that rotation from one secondary point to another secondary point was about an axis in the Listing plane. Our excuse for making such a statement is found in the following quotation from Maddox, page 37: "Voluntary motions [a movement of fixation from one secondary point to any other secondary point must be a voluntary motion] of a healthy eyeball are limited to rotations about all conceivable diameters in one plane, namely, that plane in which the vertical and transverse axes lie, and which it is convenient to call Listing's plane." On the same page Maddox says: "Listing's plane passes through the center of motion of the eyes and is a vertical transverse plane fixed in the head."

As will be seen, in the editorial criticised, Maddox on page 38 of his book denies, in a foot-note, that rotation from one secondary position to another secondary position is on an axis in Listing's plane. We had not then seen that others had agreed with Maddox in this particular.

Dr. Wilson's second criticism is on this statement which appeared in the editorial: "The plane at right angles to the line of fixation,

when in the primary position, is the transverse plane of the eye; the plane at right angles to the line of fixation in the secondary position must also be the transverse plane of the eye, therefore the axis around which this rotation occurs is in the transverse plane of the eye." He shows his agreement with this statement by using these words: "This is no doubt true."

The third criticism is a point well taken. We are now willing to concede that an axis in Listing's plane would remain at right angles to the line of fixation as it moves up and to the right, or in any other direction, if the eye starts from the primary position; but, at the same time, he must agree that the axis of such rotation is also in the transverse plane of the eye.

The matter that he criticises in the fourth place, he claims is not clear. We are forced to leave out the words "in an oblique direction from the primary position," so that the sentence would then read: "If the rotation from one secondary position to another secondary position were on an axis in Listing's plane, the line described by the visual axis would be a curved line which cannot be the shortest distance between two points." The meaning intended was this: Let *a* and *b* be two secondary points in space. In going from *a* to *b* the point of view would not go on a straight line, but would describe a curve, the concavity looking towards the primary position of the visual axis. In fact, it would take a double rotation to change the point of view from *a* to *b*. To have said "the visual axis would generate a curved surface, the concavity looking towards the primary position," would have been better.

The same would be true if the rotation from one secondary point to another secondary point were on an axis in a plane half way between Listing's plane and the transverse plane of the eye, as advocated by Dr. Wilson and as first pointed out by Helmholtz.

The contention of the editorial was that all possible rotations of the eye, whether going from the primary to some secondary position, or *vice versa*, or from any one secondary position to any other secondary position, have their axes in the transverse or equatorial plane of the eye. This we still contend is the true law of ocular rotations, and we believe that we can take the argument of Dr. Wilson and Helmholtz to prove its correctness. Dr. Wilson quotes Helmholtz as saying: "To pass from *any one* position of the eyeball *a* to *any other*

position *b*, we construct the planes of the axes of rotation for the two positions *a* and *b*; the line of intersection of the two planes is the axis upon which the eye rotates to pass from *a* to *b*. For it is evident that this axis must lie in both planes in order to make rotation from *a* to *b* possible."

In order that the two planes mentioned by Helmholtz may be properly related, another plane must be first constructed. This plane on which the construction of the other two depends is the plane common to the two positions (whether the one be primary and the other secondary, or both secondary) of the visual axis. The planes for *a* and *b* are now constructed at right angles to this plane. Their point of intersection is the axis of rotation from *a* to *b*. Since these two planes are everywhere vertical to the plane first constructed, their line of intersection (the axis of rotation) must also be vertical to it. Through this line of intersection, another plane, vertical to the first and either one of the other two planes, may be constructed. The correct name of this last plane would be the transverse or equatorial plane of the eye. Thus it is proved that every possible rotation (not torsion) of the eye has its axis in the transverse or equatorial plane of the eye.

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## A WORD CONCERNING THE ETIOLOGICAL RELATIONSHIP OF EPIDEMIC INFLUENZA TO CHRONIC GLAUCOMA.

By G. E. DE SCHWEINITZ, A. M., M. D.

PHILADELPHIA, PA.

That "the prime etiological factor of glaucoma is constitutional," to quote the title of one of Dr. Richey's papers on this subject, has been maintained from time to time and certain systemic diseases have been given the rôle of exciting agents, particularly rheumatism and gout, the latter affection including the uric acid diathesis in the widest acceptation of the term. Some observers believe that influenza may play a similar part. For example, Zentmayer and Posey\* in their clinical study of 167 cases of glaucoma simplex, found an increased frequency of this

\* Archives of Ophthalmology, 1895, Vol. XXIV, p. 378.

disease during the decade in which influenza manifested itself with unusual severity, and suggested that this increased frequency is due to the deleterious influence of this affection. In my own analysis of 63 cases of chronic glaucoma with special reference to the field of vision influenza\* was thought to have exercised an exciting influence 7 times.

The case which follows is recorded because it furnishes a suggestion as to the manner in which epidemic influenza may cause the ophthalmoscopic appearances to which we give the name chronic glaucoma, and why, therefore, during seasons when this disease is prevalent non-inflammatory glaucoma seems to be more frequent.

Mrs. A., aged 56, consulted me on the 26th of April, 1900, and gave the following history: Six weeks prior to her visit she had an unusually severe attack of influenza, which confined her to her bed for ten days. Convalescence had set in, when she went out, the day being somewhat windy, and suffered a relapse. With this relapse there was almost complete blindness of the right eye, associated with pain on movement and pressure. She was treated very judiciously by her family physician until she was able to make the trip to this city for ophthalmic advice.

*Examination.*—The patient was a healthy looking woman, perhaps slightly anaemic, with an excellent family and personal history, and except for some lassitude following her illness and a certain amount of apprehension on account of the blindness of the right eye, in good general condition without signs of organic disease.

R. E. V.—light perception. The disc was nearly round, the outer and lower half markedly decolored, the arteries small and the veins somewhat full by contrast and slightly beaded. The field of vision was as follows: Outward, above and somewhat to the nasal side a 2 cm. square of white was perceived, while the lower and outer half of the field was dark.

L. E. V.—6-6 with +.2, and with suitable presbyopic correction 0.50 pp. 33 cm. The disc was normal in appearance, the arteries were perhaps a little smaller than they naturally should be, but otherwise presented no changes.

The diagnosis of retro-bulbar neuritis as the result of grippe was not hard to make. The treatment consisted of counter-irritation on the

\* Annals of Ophthalmology, 1899, Vol. VIII,

temple, profuse pilocarpine sweats, followed by iodide of sodium and later by nitroglycerine and strychnine.

Two weeks later the patient returned with the statement that the vision of the right eye was better, but that some dimness of sight was beginning in the left eye. Examination revealed the vision of R. E. to be D. +60 at 60 cm., the card being held somewhat eccentrically. The vision of the left eye was 6-15. Ophthalmoscopically the right disc appeared slightly better in color and a note is made of a beginning shallow excavation. In the left eye the veins were full, fuller than at the last examination and somewhat beaded, while the arteries were small. A shallow excavation, or perhaps more properly physiological cup, occupied the center of the disc. The fields of vision were as follows: That of the right side was almost full in the periphery with a large irregular scotoma in the center; that of the left side was nearly full in the periphery; the red and blue fields were normal, but there was green acromatopsia, and four days later with the vision practically the same a central color scotoma could be detected.

After five weeks of treatment, which did not vary from that already detailed, the vision of the right eye was 4-100, and of the left eye with proper correction, namely, +2+.50c axis 180 6-5, the field of vision being normal and the relative scotoma and disturbance of color sense having disappeared. The scotoma upon the right side was now nearly central, being 15 degrees outward, 20 degrees upward, 30 degrees inward and 15 degrees downward.

One month later the conditions were about the same, the scotoma being a little less pronounced.

Four months later vision of O. D. was 6-30 with difficulty; the anterior chamber was shallow and the T. normal. Ophthalmoscopically the following conditions were noted: Nearly round disc, its edge +1.5 D.; large excavation to lamina, shelving outward, but not complete to nasal edge, the scleral ring being broadened on the temporal side. The vessels, not pulsating, approached a little to the nasal side. The color of the disc was distinctly gray. The visual field was as follows: Slight contraction up and in and to the temporal side, elsewhere full; moderate contraction of the red field; oval central scotoma, complete for colors, incomplete for white.

In other words, the ophthalmoscopic appearances at the present time are not unlike those which one frequently sees when the diagnosis

is somewhat difficult between a shallow glaucomatous cup and the cupping of optic nerve atrophy. If, as in this case, in a little less than seven months the surface of the optic disc could change from one which presented the ordinary phenomena of a slight physiological excavation at its center to one which contained an almost complete shallow cup, distinctly pathological, although not with abrupt edges and complete crowding of the vessels to the nasal side, as one sees in true glaucoma, it is not inconceivable that in the months to follow the process may proceed still further and the true glaucoma excavation become manifest. Undoubtedly the original lesion in this case was that which characterizes the so-called retro-bulbar neuritis, and which first attacks the axis of the nerve and then extends further on and involves the neighboring fibers until the cut in the field is produced which was evident at the first examination. Under the influence of medication the peripheral fibers recover, in part at least, their function, while the central fibers fail to meet with so fortunate an experience. Next atrophy and shrinkage take place and excavation begins, again first in the center, which widens as the adjoining fibers become involved in the process. If to this should be added the phenomena of increased tension, which as yet I have not been able to detect, and the cup should later assume the appearances which we are wont to describe as typical of rise in intraocular tension, then the clinical picture would be complete and the case could be taken from the category of excavation with atrophy and placed with that of so-called chronic glaucoma. That some form of neuritis antedates the development of the glaucomatous cup is of course well known. Thus, for example, Brailey and Edmunds have stated that neuritis precedes increased tension, a statement which is verified by a number of other observers, the entire literature of the subject having been carefully analyzed by Stirling.\* Therefore it does not seem improbable that the axial neuritis which is occasioned so frequently by epidemic influenza, more frequently, I think, than perhaps by any other disease, may be the starting point of a glaucomatous excavation of the nerve-head.

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Dr. Nelson Miles Black, of Milwaukee, was married Tuesday, January 22, to Miss Erna Leidersdorf.

\* *Annals of Ophthalmology and Otology*, Vol. V, 1896, p. 1026.

BLINDNESS AND DEATH FROM DRINKING ESSENCE OF  
JAMAICA GINGER, PEPPERMINT, ETC., DUE  
TO METHYL ALCOHOL.

By HERBERT HARLAN, M. D.

BALTIMORE.

(With Report of Chemical Examinations of Essence Jamaica Ginger, by H. P. Hynson  
and H. A. Brown, Dunning.)\*

In 1897, Dr. A. G. Thomson reported in the OPTHALMIC RECORD a case of complete blindness due to the drinking of essence of ginger. About that time we began to see these cases in Baltimore. Dr. Hiram Woods reporting six such cases in the OPTHALMIC RECORD for February, 1899. Their novelty excited a good deal of interest. It has been the habit in local option neighborhoods for a long time for people craving alcohol to substitute the various alcoholic essences when the ordinary forms could not be obtained. And that cases so striking as complete blindness should have escaped notice and publication was unaccountable. Such cases must have only been occurring recently.

In 1898-9 cases of blindness and death from drinking methyl alcohol were reported by Kuhnt, McCoy & Michael, Moulton, Holden, Gifford, Patillo, Callan and others. The very first on record, however, being that of Viger, which was generally overlooked, being published in *l'Année Medicale*, June, 1877. There is a striking similarity in the symptoms of all these cases, and as will be seen later, they are the same when the essences of ginger and peppermint were the beverages used. In Viger's case, an hour after drinking, there came on intense headache, vomiting, profuse sweating, dilatation of pupils and delirium. Next day the delirium was gone, but there was complete blindness. After a week sight began to return, and at the end of six weeks the patient could see to get about. Subsequently he became entirely blind. This may be taken as a typical case where a full dose either of more or less impure wood alcohol or one of the essences is taken.

In some cases when the dose was large or taken on an empty stomach, death ensued in a few hours. Some others where the dose was small entirely recovered. In most there was violent sickness, then blindness, then some return of sight, then complete blindness with optic nerve atrophy.

\* Read at Semi-annual meeting of Medical and Chirurgical Faculty of Maryland at Youson, Nov. 1900.

## 82 BLINDNESS AND DEATH DUE TO METHYL ALCOHOL.

The consumption of wood alcohol by manufacturing druggists has increased enormously in the last decade. It can be bought wholesale for 75 cents a gallon of 95 per cent, 80 cents a gallon of 97 per cent, while the ordinary 95 per cent ethyl alcohol costs \$2.45. When it is remembered that these essences contain about 95 per cent of some sort of alcohol, it is easy to understand the temptation for an unscrupulous manufacturing druggist to use the cheap and poisonous variety.

I was satisfied in my own mind that such was being done. To prove it was another matter.

Case I. On March 6, 1900, O. O. aet. 28, from Crisfield, Maryland, was admitted to the Presbyterian Eye, Ear and Throat Hospital. The history was that on election day the previous November he had drunk seven bottles of Jamaica ginger, and was made drunk by it. He was, however, able to walk home in the evening, a distance of two miles. The family state that he drank seven more bottles and then went to bed. He was very sick and knew nothing till three days later, when he woke to find that he was almost blind, but could see to get about. His vision slowly decreased till about February 1. Since which time it had been stationary.

On admission he could see light and large objects in an uncertain way. The ophthalmoscope showed optic nerve atrophy. The treatment was strychnia and pilocarpin sweats each night. March 19, he counted fingers at three feet. But as is usual in these cases there was a good deal of variation in his vision from day to day. He left the hospital March 27, and the note on that day is "little if any improvement in vision." I wrote to Dr. G. T. Simonson of Crisfield and he very kindly obtained for me a sample of the same package of Jamaica ginger from which O's supply had come. Dr. S. writes me further that O. later became entirely blind. The ginger was made by a well known wholesale drug house of Baltimore.

Case II.—N. B. D., aet. 30, American, single, of Circleville, W. Va., came to the same hospital April 19, 1900. He gave a history of going on about six sprees a year. When he could not get whisky or brandy he drank drugs—as essence of cinnamon, of peppermint, of lemon, or "hot drops."

Sometimes he would go for a month without drinking. Then he would drink for a week at a time. He had used tobacco continuously

for last seven years by chewing, snuffing and smoking. His present trouble began in May, 1899. On a Saturday he drank three bottles of ess. peppermint, and part of a bottle of ess. of lemon. The next day he felt "unnerved," sick and stupid, and his eyesight began to grow dim. The dimness increased and by Wednesday he could only distinguish light from darkness. Under the treatment of a local physician his sight grew better.

Examination showed both nerves to be atropic. The fields were small and irregular. The central vision was  $\frac{5}{cc}$  in each eye. His treatment was pilocarpin, strychnia and later Kal. Iod. His fields improved materially and the central vision a little, being when he left the hospital on June 6  $\frac{6}{cc}$  in the right and  $\frac{7}{cc}$  in the left eye.

He brought with him to the hospital about half of one of the bottles of peppermint. It was put up by the same firm as the ginger bought in Crisfield.

In a daily paper of Sept. 6th, I saw an account of the death of two men at Fawn Grove, York county, Pa. I wrote to Dr. V. Hawkins of that place in hopes that he could give me some details. He wrote me a most interesting letter giving an account of the drinking, of the symptoms manifested, including blindness in one case, and of the death of the two men. He volunteered further the name of the manufacturer of the ess. ginger drunk. It was the same Baltimore firm as in the other cases. Later he obtained quite a large supply from the Fawn Grove store.

Samples in similar bottles and with like labels were obtained from Harford county and other places.

I consulted Messrs. Hynson & Wescott, the well known druggists of Baltimore, as to the tests for Methyl Alcohol. They became interested in the matter and kindly had Mr. Dunning of their chemistry department make the analyses. Mr. Hynson will follow me, and will, I think, convince you that at least one drug firm of Baltimore uses Methyl Alcohol in making its essences.

*Messrs. Hynson and Dunning's Paper.*—The serious, really sad, results following the drinking of so-called "essences" of peppermint and Jamaica ginger, reported by Dr. Harlan, must startle the experienced pharmacist and at once create in his mind doubt regarding the quality of the constituents used in preparing these compounds, since it must have often come to his knowledge that they

## 84 BLINDNESS AND DEATH DUE TO METHYL ALCOHOL.

have been used in large quantities as stimulants, when prepared according to the pharmacopœia, without apparent injury.

This positive knowledge of pharmacists as to the proven, comparative harmlessness of these popular domestic remedies, even when taken in much larger quantities than was used by the patients referred to, quickly brings the conclusion that when they are found to possess toxic properties, they have been improperly made.

"Essence of peppermint" should be a synonym for the U. S. P. spirit of peppermint, a 10 per cent, by volume, solution of oil of peppermint in ethylic alcohol, while "essence of Jamaica ginger" should be the U. S. P. tincture; ethylic alcohol, in every 100 c. c. of which is dissolved the oleoresinous matter of 20 grams of ginger.

As stated by Dr. Harlan, we have at his request and in the interest of better and more honorable pharmacy, undertaken to prove in a practical manner; first, the absence of sufficient ethylic alcohol, in the liquids taken by the unfortunates cited; secondly, that other products and ingredients than those authorized by the pharmacopœia were used in their manufacture; thirdly, that one of the constituents is methylic or wood alcohol.

It is proper, just here, to say that acquaintance with the value of the ingredients entering into the pharmacopœia preparations and a knowledge of the prices, at which these commercial products are sold to grocers and country merchants, would prejudice the case in the mind of any competent business man.

Through the kindness of Dr. Harlan and his friends, we have been supplied sufficient of the ginger product with which to experiment. Not enough of the "peppermint," however, was at hand to work upon satisfactorily, yet the small quantity we had, plainly showed it bore the same taint as the ginger—differing from the latter, however, in the larger amount of water present—about 33 per cent—a quantity possible in the weak peppermint solution, but impossible with the ginger and capsicum preparation.

It is quite natural, we think, to suspect the presence of methylic alcohol, since its peculiar toxic effects had been noticed and because, to the mercenary manufacturer, it is the logical substitute for ethylic alcohol. Every other solvent of the kind is prohibited by more noticeable physical properties, excepting, perhaps, acetone, and the absence of this is proven by the higher boiling point of the suspected product. Acetone boils at 56 degrees.

To the uninitiated the matter of separating and proving organic compounds may appear as something to be easily effected, but to the chemist it offers many difficulties, suggests an immense amount of detail and requires much time which, unfortunately, is rarely at the command of the active pharmacist.

As a preliminary, we prepared, as are here exhibited, two distillates; one from the U. S. P. tincture and one from an equal quantity of the suspected "essence." The respective residues from these are worthy of notice. It will be observed that they are very different in appearance as they are in taste. Capsicum is, evidently, present in large quantities in the "essence," being used to

make it "hot" when small proportion of the more expensive ginger is used. So far, however, we have not made critical examinations of these residues.

From the distillate of the suspected "essence" we then secured by successive careful fractionations a product with a fixed boiling point at 65 degrees. By repeated experiment we found that a mixture representing 75 per cent of wood alcohol and 25 per cent ethylic alcohol very nearly resembles the first essence distillate. Including this mixture, we have for comparison, ethylic alcohol—a distillate from official tincture of ginger. A mixture of 75 per cent of wood alcohol (using Columbian spirits, the purest brand of commercial methylic alcohol on the market) and 25 per cent of ethylic alcohol—also methylic alcohol and the product secured by fractional distillation from the "essence."

By treating one c. c. of each of these exactly alike with sodium carbonate, water and iodine as in the process for the manufacture of iodoform we secure results which are seemingly conclusive. Equal quantities of iodoform are found in the ethylic alcohol and the distillate from the U. S. P. product; equal quantities of iodoform are also found in the mixture, of 75 per cent methylic and 25 per cent ethylic, and the distillate from the "essence," but the amount is just about one-fourth as much as is found in the first series. No iodoform is formed in either the methylic alcohol or the final product of our fractionation; the substance deposited in these upon cooling and is redissolved if the tubes are heated in sodium iodate. Taking similar specimen and ascertaining their respective boiling points—a manner of differentiation regarded as absolute—we secure results as follows:

Ethylic alcohol boils steadily at 78 degrees U. S. P. Distillate boils steadily at 78 degrees. Mixture, methylic, 75 per cent; ethylic, 25 per cent; boils at 68, 69 and runs up to 70 and 71 degrees.

Suspected distillate boils at 68-69 and runs up to 70-71 degrees.

Methylic alcohol boils steadily at 65 degrees.

Final product of fractionation boils steadily at 65 degrees. Thus supporting our iodoform results and showing conclusively, we think, that the alcoholic constitution of the "essence" under consideration to be about 75 per cent of methylic and 25 per cent ethylic alcohol.

Since the final product of fractional distillation boils steadily at 65 degrees and has the characteristic odor of wood alcohol, we unhesitatingly pronounce it to be nothing more, nothing less,—additional evidences of its identity are shown in its ability to *rapidly* reduce potassium permanganate, to reduce silver nitrate after formates have been formed by the oxidizing effect of potassium dichromate and to its ability to form methyl salicylate (artificial oil of wintergreen) when treated with sulphuric and salicylic acids.

While we do not profess to be expert chemists and are not sure our work would be recognized in the law courts, yet we believe the results secured are such as to convince almost any one that wood alcohol is present in large quantities in the essence of ginger examined. It must also be concluded, since tincture of ginger made with ethylic alcohol has never produced the toxic and sight destroying effects described by Dr. Harlan, that methylic alcohol is entirely unfit for administration.

## ABSTRACTS

### OF RECENT OPHTHALMIC LITERATURE.

By GEO. E. DE SCHWEINITZ, M. D. AND C. A. VEASEY, M. D.

**Concerning the Etiology of Chronic so-called Idiopathic Irido-choroiditis.**—Senn and Spirig (*Correspondenzblatt Schweizer Aertzte*, abs. in *Woch. fur Ther. u. Hygiene des Auges*, Nov. 15, 1900.) state that this disease usually arises with very mild inflammatory phenomena, is almost always bilateral, pursues a very slow course and generally results in complete blindness. It is frequently encountered in patients who, independent of their ocular affection, are in perfect health. The conception of idiopathy in relation to the etiology has in recent years been much more restricted than formerly as syphilis can be positively demonstrated in many of the cases. In 1894 intense ozena was observed in a case, and since this time all cases that have been seen by the authors have been examined for this condition. Of twenty-five cases so examined 56 per cent have been found more or less affected with ozena or a greater or lesser degree of atrophic rhinitis or fetid pharyngitis. In all of these patients it was definitely ascertained that the nasal preceded the ocular disease, and that, as a rule, no treatment had been employed for its relief. In some of the cases the patients themselves had become aware of the relation between the two conditions and had observed that the diminution of the vision, which progressed gradually, was associated with an exacerbation of their chronic rhinitis or pharyngitis. Based upon statistical facts and clinical manifestations the authors feel justified in concluding that the frequent coexistence of chronic irido-choroiditis and a chronic nasal disease, with purulent or fetid secretion, is more than incidental, though the exact relationship remains unexplained. Clinical facts, however, in a study of eight cases, show that this otherwise destructive disease of the eye is very favorably influenced by an associated treatment of the nasal condition. Spirig remarks that the nasal conditions that were associated with irido-choroiditis varied from a mild atrophy of the mucous membrane and dry catarrh to the typical picture of primary ozena and explains the relation of the nasal to the ocular condition as being due to an acute inflammation of the mucous membrane

following a chronic atrophic rhinitis, the accumulation of marked secretion and the transportation from the nose to the eye of infectious material, or such as would disturb the nutrition of the tissues.

**Aspirin in Diseases of the Eye.** Wicherkiewicz, in referring to the employment of aspirin in ocular diseases (*Woch. für Ther. u. Hygiene des Auges*, Nov. 8, 1900.), describes it as a white crystalline powder slightly soluble in water and soluble up to 1 per cent if heated to 37 C. degrees. Acids do not affect it, but it is slightly soluble in alkaline fluids. Taken into the stomach it produces no irritation if this organ be in normal condition. It is stated on the authority of Wohlgemuth that it is similar in action to salicylate of sodium, but, unlike the latter, does not give rise to any gastric disturbance or anorexia. It is also claimed that it does not possess the disadvantageous action of salicylate of sodium and salicylic acid upon the heart.

Wicherkiewicz has employed it with success in chronic conjunctivitis due to a long-standing gonorrhœal urethritis, in iritis and iridocyclitis, scleritis and episcleritis, rheumatic in origin, in serous uveitis with vitreous exudate and glaucomatous manifestations in acute glaucoma and trigeminal neuralgia if rheumatic. It is administered in capsules, a gramme night and morning, accompanied by bicarbonate of soda, and can be employed for some time without any disagreeable symptoms arising, which cannot be said of salicylic acid, salol, etc.

**Blepharo-sphincterectomy, an Operation for the Treatment of Trachomatous and Scrofulous Keratitis.** Under this title Mulder (*Klin. Monatsbl. für Augenheilk.*, November, 1900.), describes an operation which he reported first before the Dutch Ophthalmological Society in 1894, but which he has practiced for eighteen years, consisting of the removal of a portion of the orbicularis fibers of the upper lid, and especially of those fibers overlying the tarsus. It is claimed that the operation diminishes the pressure of the upper lid upon the cornea in all of those cases in which the corneal disease is kept up by the contraction of the orbicularis muscles, as is so frequently the case in trachomatous and scrofulous keratitis, and that it also removes the ptosis so that the cornea is freed from constant contact with the diseased conjunctiva. The greatest indication, according to the author, is trachoma in all of its stages.

The technic of the operation is as follows: Cocaine anæsthesia is

employed in adults. An incision is made in the skin about 2 mm. from the lid margin and parallel to the same along its whole length. By a second incision a small oval skin flap from 2 to 4 mm. in breadth is cut around, and with all of the underlying muscular fibers is removed with the scissors. Frequently these fibers are found to be markedly hypertrophied. If more of the muscle is to be removed than is included in the flap the skin of the lid is drawn upward so that the fibers are readily exposed. The wound is closed with two or three sutures and dressed with boric acid ointment, the sutures being removed in two or three days.

Mulder recommends the operation in almost all cases of trachoma, even in the earliest stages, before any complication has arisen, first, because the ptosis and abnormal pressure are relieved, patients are much less annoyed by the disease and the condition yields much quicker to the ordinary topical applications; second, because the operation in most cases prevents the appearance of a keratitis, or if it be present assists materially in its disappearance and prevents a recurrence; third, because there is removed one of the principal causes of entropion.

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Drs. G. S. Ryerson and E. E. King, Toronto, succeeded in locating by the aid of a skiagraph and extracted a piece of steel chisel from a workman's eye at the inner side of the optic nerve.

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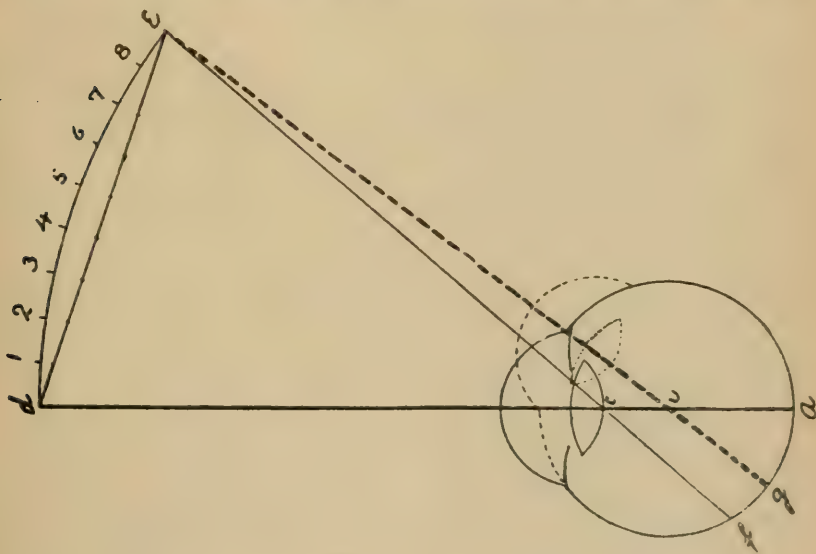
The following is an interesting clipping from one of the East Indian Medical Societies: "*A Chair in Throat and Ear Diseases for the Calcutta Medical College and Hospital*. The secretary, in bringing forward this subject said there was no need to enlarge upon its merits, as they were patent to every practitioner in the city. They had no specialists in this branch of surgery, and sufferers from serious chronic throat and ear disorders had either to be satisfied with amateur treatment or proceed to Europe for skilled aid. It was resolved that the Council do approach Government for the appointment of a specialist in throat and ear diseases to the Calcutta Medical College and Hospital, and that the Secretary do address the Government of Bengal on this matter."

## CORRESPONDENCE.

### CRITICISM OF DR. SAVAGE'S EDITORIAL ON THE LAW OF DIRECTION.

To the Editors of the OPTHALMIC RECORD.

In the November, 1900, number of the RECORD, Dr. Savage presents what he believes to be a "convincingly conclusive" argument in favor of the "retinal radius theory" of direction. Dr. Savage's illustration is reproduced in the accompanying figure. He states that if  $d$  is the point of primary fixation, the direction of  $e$  must be denoted by the



line  $ebg$ , passing through the center of retinal curvature; because, in changing fixation from  $d$  to  $e$ , the line of direction of the point  $e$  will coincide with  $ebg$ .

That this conclusion is altogether unwarranted, is apparent from inspection of the figure. The line  $ebg$  cannot mark the direction of  $e$  when  $d$  is the point of fixation, because it is impossible for any light

from  $e$  to reach the retina at  $g$ . We know that all the rays of a pencil from  $e$  will be focused at  $f$ , and that the line  $ecf$  is a straight line when the interval between the two nodal points is neglected. The image of  $e$  must therefore be at  $f$ , and the straight line  $ecf$ , which connects the image with the object, *must* indicate the direction in which the object lies.

W. N. SUTER, M. D., Washington, D. C.

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Dr. L. Webster Fox has been appointed one of the executive committee of the Philadelphia Medical Club.

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The following is an interesting clipping from the *Chicago Times-Herald*:

Royalty has been having its eyes overhauled. For that important duty a celebrated oculist, Professor Hermann Pagenstecher, M. D., director of the Ophthalmic Hospital at Weisbaden, was summoned to London Wednesday. He went to Osborne to examine the eyes of the queen. A lengthy interview resulted, in which the specialist is understood to have given her majesty new instructions, in addition to glasses, with the object of preserving her failing sight, though, it is said, he found only a slight deterioration of vision since his last examination. Thence Professor Pagenstecher went to Marlborough House, where the Prince of Wales underwent the ordeal of submitting his lately adopted eyeglasses to the criticism of the great professor.

It was only to the queen and the Prince of Wales that Professor Pagenstecher would consent to go. All the others had to come to him. The Duke of Cambridge and other notabilities flocked to his hotel, humbly waiting in the corridor until Professor Pagenstecher was ready to see them. The Duke of Cambridge was benefited so greatly that he went to his old cronies and insisted on their visiting the eye healer. Following his advice, they crowded to Professor Pagenstecher Friday. At last the specialist fled from the hotel, declaring he would not see another soul that day, be he king or commoner. The professor goes to the continent to inspect the eyes of the King of the Belgians Sunday, and before he returns to Weisbaden he will probably continue his journey to several other royal palaces.

## REPORTS OF SOCIETIES.

### SECTION OF OPHTHALMOLOGY.

#### COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting, December 18, 1900. Dr. George C. Harlan, Chairman, in the Chair.

Dr. G. C. Harlan showed a patient with *myosis and ptosis, due to a gunshot injury of the right cervical sympathetic* received 5 years ago. The right pupil responded promptly to light, but was 2 mm. smaller than the left either in contraction or dilation. The edge of the upper lid covered the upper margin of the contracted pupil. There were no other symptoms and no history of unilateral sweating. Under homatropin mydriasis the pupils retained the same relative size. The voluntary movements of the lid were normal. The patient was wounded from in front while in a stooping position and leaning forward, and the scar of entrance of a rifle ball was on the anterior margin of the sternomastoid at about the level of the cricoid cartilage. The ball, which was never traced and could not be located by X-ray examination, probably grazed the carotid and passed downward and backward.

Dr. James Thorington exhibited a boy, 14 years old, with *subluxation downward and inward of each lens*. Vision—R. E., fingers at 14 inches; L. E., light-perception. R. E., cornea clear; anterior chamber deep, especially up and out; pupil round, 3 mm. in diameter: T—2. Under atropin pupil dilates vertically oval, 6x7 mm., showing transparent lens subluxated, the upper and outer periphery being 2.5 mm. from pupillary margin. Eye-ground healthy. The refraction through the pupillary area unoccupied by the lens is + 13 S., with slight astigmatism, and in other portions by the lens—45 S—15 cvl. axis 75. The estimate was obtained with the retinoscope, the point of reversal being at 8 inches. V. with this combination was  $\frac{6}{60}$ . The ophthalmometer showed 1 D. cylinder, axis 90. The probable cause of the myopia was the subluxation of the lens, permitting it to assume an almost spheric shape, the rotation of lens on its vertical axis likewise resulting in the astigmatism.

*Discussion.*—Dr. Hansell had seen a patient with congenital dis-

location in which the myopia amounted to 18 D., with 8 D. of astigmatism. Dr. Harlan said that the high myopia in these cases simply emphasized the Helmholtz theory of accommodation.

Dr. C. A. Veasey reported a case of *Restoration of useful vision in a complicated case of acute inflammatory glaucoma of ten days' duration, with visual acuity reduced to the perception of light*. The patient, an unmarried female, 42 years of age, had glaucoma in L. E. six years previously, which, notwithstanding continued medicinal treatment by an oculist, had progressed to absolute glaucoma. The present attack was in R. E., and when first seen by the writer on the ninth day, V. + light-perception. The usual palliative treatment failing to ameliorate the condition, an upward iridectomy was made on the following day. Some vision was restored and the eye became comparatively quiet. The lens continued to swell, however, and in a couple of months iritis and secondary glaucoma supervened. The lens matter was extracted, and with correcting glasses V. =  $\frac{5}{40}$ . A year and a half later the patient returned with a closed pupil and reduced vision, for which an iridocystectomy was performed, V. =  $\frac{5}{60}$ .

Dr. H. F. Hansell reported a case of *Tuberculosis of the conjunctiva in a healthy child 13 years of age*. The diagnosis was based upon the microscopic examination made by Dr. E. A. Shumway that demonstrated a central area of necrotic tissue surrounded by mononuclear cells and by cells of an epithelioid type, with many giant-cells. The growth was covered by thickened conjunctival epithelium and subconjunctival tissue, was hyperemic and infiltrated. No tubercle bacilli were found. Examination of the literature showed that 5 forms of the affection were recognized; that it is more frequently a primary than a secondary manifestation; that relapses are prone to occur and that early removal of the diseased tissue offers the best means for permanent cure. Several cases have been reported in which traumatism of the conjunctiva was the only apparent cause of tubercular infiltration at the site of the injury. If excision is not practiced early the preauricular and submaxillary glands become involved. The diagnosis rests upon the discovery of tubercle bacilli, upon the production of tuberculosis in animals after inoculation of the excised tissue, and upon the microscopic examination of the structural tissue changes.

Dr. W. M. Sweet exhibited a *Piece of iron imbedded in inflammatory exudate removed from the vitreous by forceps after failure of*

*magnet.* The patient, a boy aged 20, was struck in L. E. two months previously while chipping a boiler rivet. The physician who examined the eye a few hours after the accident advised him that there was nothing in the eye, and, after prescribing a wash and keeping him at home for a month, said he could return to work. So much pain and discomfort followed the use of his eyes for near work that he was compelled to stop after 3 days. He came to the Jefferson Hospital on December 13th, at which time the pupil was moderately dilated, and the iris bellied forward in lower outer quadrant. A scar in the cornea and sclera could be plainly seen. In the lower outer portion of the vitreous was situated a mass of exudate over which a number of blood-vessels could be traced. The mass seemed to be attached to the lens and to the ciliary body. Uncertain light-perception with detachment of retina over other portions of fundus. Radiographs indicated a metallic body in the lower outer portion of vitreous, near ciliary body. The next day an attempt was made to remove the metal through an incision in the sclera. The flat extension point of the Hirschberg magnet attracted the body and drew it to the lips of the scleral wound, but failed to dislodge it. While the magnet held the body near the scleral opening Dr. H. F. Hansel grasped the metal with forceps and removed it. The body was imbedded in a mass of tissue to which was firmly attached the crystalline lens. Dr. Sweet reported the case as another evidence of the importance of positive and early diagnosis—whether by the X-rays or other means—in all suspicious injuries of the eyes from pieces of metal.

*Discussion.*—Dr. Hansell called attention to the point that had been frequently manifested before the society of which this case was additional proof; namely, the necessity, in order to save useful vision, of the immediate removal of a foreign body that had perforated the coats of the ball. After vision had been destroyed and the eye degenerated, as shown by the opaque lens, fluid vitreous, detached retina, and large masses of exudation, the extraction of the metal could save only the ball, whereas immediate extraction might have saved both the ball and the sight. He alluded to the usefulness of the injection of physiologic salt-solution in collapsed eyeballs. In Dr. Sweet's case the vitreous chamber had been emptied of its fluid contents during the operation. Before the introduction of the sutures, 2 syringefuls of salt-solution had been injected, and after the final conjunctival suture and closure of the wound

the hypodermic needle was again inserted into the incision and more solution injected, so that at the conclusion of the operation the eyeball had regained almost its previous form and size. During the healing, which was uneventful, the shape of the ball was restored and maintained. Dr. Risley said that the disappearance of the sympathetic irritation upon the removal of the mass of exudate was an important point in the case, and thought that possibly the contraction of this mass, dragging as it did upon the lens and the ciliary process, was probably a factor in the cause of the irritation.

WILLIAM M. SWEET,  
Clerk of Section.

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#### CHICAGO OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY.

A regular meeting was held Dec. 11, 1900, with the President, Dr. C. D. Wescott, in the chair.

Dr. F. C. Hotz presented a patient who had received an *injury to the left eye from a piece of iron* about ten days ago while he was working with a fellow workman. As the patient was bending over, a small chip of the hammer of his fellow workman broke off and hit the left eye. There is a small oblique scar about three millimeters in the upper temporal part of the sclera, a few millimeters from the cornea. The eye has not troubled the patient since the injury and has remained free from inflammation. The lens is clear. In the lower part of the eye Dr. Hotz found a large dark mass, impenetrable to light, from which he concluded that after the chip had penetrated the tunics of the eye it had dropped down to rest upon the floor of the vitreous chamber. He expected to have preparations made for the extraction of this foreign body by the magnet, but by some misunderstanding the apparatus was not ready, and it having been late in the afternoon of his clinic, he postponed further proceedings. He was glad that he did this, because when he examined the man's eye again he found considerable change. He is convinced that if Hirschberg's magnet had been used with the idea that the foreign body was at the bottom of the vitreous chamber, the operation would have been a failure. He finds now that this large mass has dissolved itself into several films through which at present considerable light is returned from the fundus. These films, he supposed, must be blood. In the back part of the fundus, about two papillæ diameters to

the outside of the macula and a little below the horizontal meridian, there is a large white patch, surrounded by bloody infiltrations in the retina, and from the lower part of this patch considerable blood ran downwards, looking like waves of red liquid. The question arises, is this foreign body contained in that white patch, and is it stuck fast in the sclera, covered with the exudate, or has it gone farther?

An X-ray picture is to be taken to settle this point before anything further is done.

The absence of all inflammation certainly warrants an expectant policy, and for the present Dr. Hotz is inclined to abstain from operative measures of any kind and to keep the eye under observation for further developments, especially keeping in mind the possibility of the chip slipping from the exudate to the bottom of the vitreous chamber. Such an occurrence, of course, would make the magnet operation an immediate necessity.

*Discussion.*—Dr. Casey A. Wood was in favor of leaving the eye alone, although it ought to be watched. It appeared to him to be a dangerous eye, as, in his judgment, the missile had passed through the anterior edge of the ciliary body. He had had occasion to observe similar cases in which nothing happened to disturb the quiet of either eye for long periods, but whenever the eyes were strained in any way or when either of them received slight blows there was trouble; sometimes going on to the involvement of the better eye. The patient should be warned of this possibility, and that at the first appearance of symptoms in either eye he should at once consult a competent ophthalmologist. He does not think such persons should be discharged as cured merely because the wound heals at once and no visional difficulties result. In England, and especially in the practice of Moorfields, the patient would probably be advised that his eye should be enucleated at once. While he objects to immediate enucleation in this class of cases, yet the fact cannot be denied that many missiles are not aseptic, and one cannot feel certain that the piece of iron which injured this man's left eye is surgically clean. Moreover it is not as favorable a wound as a gunshot injury, and viewing the matter in its various aspects demands supervision for an indefinite time to come. Dr. Wood pointed out that the case furnished an illustration of the rule that the missile is a portion of the tool used as the hammer rather than from the object hit. He had not had for a long

time a case in which the missile or piece of metal form a part of the object that received the blow.

DR. HENRY GRADLE: Apart from the immediate danger of sepsis necessarily connected with the presence of a foreign body in the eye, there is a remote danger in those cases in which the foreign body consists of iron, even if aseptic. This is the gradual dissolution of the iron, resulting in sclerosis of the retinal arteries and degeneration of the retina, a condition known as siderosis, which has been examined histologically by Hippel, and found to be a truly sclerotic process. Dr. Gradle has seen one instance of it where a young man, a physicist, in testing apparatus in the laboratory, had a piece of iron enter the eye, producing practically no immediate symptoms after the period of slight reaction. Six months later when Dr. Gradle saw him the siderosis was well marked. The lower part of the retina had lost its function almost entirely; the field ended at about the horizontal line with its upper half entirely gone. The upper half of the retina presented scarcely any change, but the vessels in the lower half were sclerosed and some were completely obliterated. There were pigment accumulations, partly in spider form, partly in larger patches, increasing towards the site of the iron chip, which was distinctly visible with the ophthalmoscope. The vitreous contained odd flakes looking like tufts of cotton. Central vision was  $\frac{20}{70}$ . As the eye was sure to be ruined ultimately, a successful attempt was made to remove the chip. There was absolutely no reaction. Vision was undisturbed. About nine months later the field and vision were the same. The shreds of opacity in the vitreous near the site of the foreign body had cleared entirely. Singularly enough the obliterated vessels in the lower half of the fundus had become invisible.

It makes a difference in a case of this kind whether the foreign body is encapsulated or not. If it is exposed to the solvent action of the vitreous, the chemical action is more apt to occur than if the foreign body is completely encapsulated and embedded in connective tissue. It is certainly wonderful how well encapsulated foreign bodies are sometimes borne. In 1890 a boy was shot by an air rifle. The physician, who saw him at once, was in doubt whether the shot had entered the eye. Dr. Holmes saw the boy the next day and advised enucleation. Dr. Gradle saw him about the third day, and he did not have the heart to enucleate the eye at once, as it was doing well. For a long time he could not say

definitely whether a foreign body was in the eye or not, although he thought so. Subsequently the foreign body was distinctly seen in a dark capsule as far forward as it was possible to see with the ophthalmoscope. The interior cleared entirely and vision is now normal. It is now ten years since the boy was hit and the foreign body has as yet caused no marked changes in the injured eye.

DR. THOMAS A. WOODRUFF reported and showed a case of *Thrombosis of the Retinal Vein*, in a girl 17 years of age, who suddenly became almost blind in the right eye. She had been working as a clerk in a store and had been in the habit of stooping and lifting heavy articles. Family history negative. With the exception of having had anemia two years ago she has always been in good health. No menstrual or other disorders present; no history of syphilis. Dr. Arthur R. Elliott examined her physically and could find no evidence of organic lesion and the urine and blood are practically normal. Left eye vision  $\frac{20}{40}$ , media clear, optic disc high colored and vessels somewhat engorged.

Right eye vision fingers 18 inches. Pupil semi-dilated and reacting sluggishly to light, and accommodation. Tension normal. With the ophthalmoscope the media were clear. There was present a papillitis. The margins of the disc were completely obscured by a swelling three diopters high at the apex. The arteries were entirely obscured and the veins partially so within the papillary region. At several points, especially above the edema entirely covered the veins. The swollen papilla gradually sloped off to join the surrounding edematous retina about half a disc diameter in all directions from the normal situation of the disc margin. Beyond the swollen papilla the retinal vessels were tortuous, the arteries extremely small and in several places buried by the retinal exudation. The veins were about twice their normal size and rarely covered by the edema of the retina. The most noticeable change in the fundus lies within the vascular region. Here grouped about the fovea is an almost perfect and beautiful wheel or star-like figure. The wheel itself measures about three disc diameters across except at its upper inner part, where it almost joins the papilla is absolutely unbroken. In this situation and below the papilla are a few dotted hemorrhages. The spokes of the wheel are yellowish white, with the intervening spaces of almost normal reddish pigment. Subsequent

examinations shows an improvement in vision and a subsidence of the retinal edema and swelling of the disc. Numerous whitish dots have appeared in the area surrounding the disc and macula. The stellate figure is not as perfect as when first seen, but portions of it on the side towards the optic disc seem to be disappearing.

*Discussion*—DR. W. F. COLEMAN: From partial reports, retinal venous thrombosis occurs only once in sixty thousand eye patients. He has seen only one other case, exhibited to this society some three years ago by Dr. Wilder. At present the appearance in the macular region in Dr. Woodruff's case differs from the painting of the fundus executed by Miss Cleveland, in that the continuous white spokes present dotted lines of white and red.

DR. J. E. COLBURN, in 1892 or 1893, saw a case without the macular appearance, there being a completely blanched disc, the vessels not showing as plainly as in this case, and the only color pronounced was just above and to the temporal side of the disc. This appeared to be a hemorrhage buried in edema and swelling. He followed the case and made drawings during a week or ten days, then the patient disappeared. She returned again at the end of six months, and in the region of what appeared to be the hemorrhage, there was a large plaque of atrophy, bounded by the usual pigment accumulations, and in its center some pigment deposits, the sclera showing distinctly through it. Her vision came up to  $\frac{2}{30}$  or thereabouts. The scotoma was well marked and corresponded to the plaque of atrophy. She has had no further trouble. This case followed a severe cold which was contracted by the patient, with cessation of the menses.

A case that Dr. Colburn saw a good many years ago at the Eye and Ear Infirmary was very similar in appearance, and that one, too, was due to the cessation of the menses. Those are the only two cases that had come under my observation, except the one presented to the society by Dr. Wilder years ago.

DR. WILLIAM H. WILDER, three or four years ago, presented to this society a case of thrombosis of the retinal vein in a man fifty years of age. It came on suddenly and caused almost total blindness in that eye. The diagnosis was concurred in by several members who were present at that meeting.

The subsequent history of the case was rather interesting and deserves mention in this connection. The retina gradually atrophied. Then there developed a detachment of the retina. At first the tension of the eye was very much lowered, but later it became considerably increased. Finally this detachment of the retina became more general; the tension of the eye increased, a growth in the choroid was suspected, and an operation advised, to which the patient consented, but his courage failed and he did not appear for the operation. Later he came again with the eye not much worse, but the tension increased. An operation was again suggested, to which he consented, but he failed to appear. Dr. Wilder felt convinced that there was a growth inside the eye. Some time later he developed serious symptoms on the part of the liver and of other internal organs, and finally died of melanotic sarcoma of the liver. The eye became very hard, and from the description given by Dr. Herrick at that time the growth seems to have broken through into the orbit, as there was considerable exophthalmos. Unfortunately a post-mortem examination of the eye was not made by the physician in attendance. If the vitality of the tissues were lowered by the thrombosis, it would be easy to understand how such a growth might occur in the choroid, and be the primary starting point of a metastatic process.

DR. C. P. PINCKARD reported a case of thrombosis of the retinal veins about four years ago, in which there was a decided difference between the picture presented in his case and the one presented by Dr. Woodruff's case, yet there could be no question regarding the diagnosis, because the blood could be seen moving in the veins as the circulation began to re-establish itself. The hemorrhages were enormous, but in the eye of Dr. Woodruff's case there are apparently no signs of hemorrhage. Another thing in this case, which is different from the ordinary cases of venous thrombosis is the deposits scattered throughout the fundus. These Dr. Pinckard has never seen in any case of thrombosis. He does not offer any suggestions as to what this case may be. Hemorrhage is particularly characteristic of venous thrombosis.

The stellate figure around the macula is most remarkable. He has never seen a case where the arrangement is so regular.

DR. CASEY A. WOOD saw the patient about a week after she came under the care of Dr. Woodruff, when the eye had all the appearances of a marked venous retinal stasis, and when there was much more

edema of the retina and of the papilla than she now exhibits. Indeed, an examination of the fundus in its present condition does not more than suggest the picture that the eye first presented. He regarded it as remarkable that this condition should be found in a patient otherwise perfectly healthy. So far as the most rigid inquiry goes, she has not now, nor has she had, any general disease whatever. She has no menstrual difficulty, no glaucoma, no anemia. Her blood is in good condition. Her heart and her internal organs all perform normal functions. The chlorosis spoken of occurred some years ago, and she has entirely recovered from that. One feels obliged to fall back on Haab's dictum that thrombosis of the small vessels, in the absence of other possible causes for it, may be regarded as the outcome of a syphilitic endovasculitis. Dr. Wood asked Dr. Woodruff whether there is a history or any indication of syphilis in this case or not.

The other day Dr. Wood saw the patient again and found that over the fovea, scattered through the fundus, were woolly-like dots. This is said to evidence that, sooner or later, the patient will have secondary degeneration of the retina and finally optic nerve atrophy. Vision is improving from the absorption of the edematous extravasation, yet if that be true, later on a change will take place. Dr. Wood thinks the wheel which Dr. Pinckard referred to is the most important thing. Haab's atlas has the best marked stellate figure he had ever seen. When looked at at first, with only slight edema of the papilla and vessels engorged, but not very marked, one comes to the conclusion that we have to deal with an aggravated case of albuminuric retinitis. But this patient has no albumin or casts in her urine, and her blood is normal.

DR. WOODRUFF (closing the discussion): The appearance of the fundus now is somewhat different than when the patient first came under observation, and at the time the painting was made by Miss Cleveland. The stellate figure is not now as perfect. Some portions of the star lying nearest to the optic disc have disappeared and the edema and swelling of papilla are subsiding. The small hemorrhages that were first seen in the region of the macula and papilla have disappeared, and scattered over this region are at present a number of small whitish spots, not the remains of hemorrhages, but probably exudates. With the exception of a slight hypertrophy of the heart, the patient is apparently in good health. The urine contains no albumen, sugar or casts. No

history of syphilis could be obtained, either hereditary or acquired. She has eight or nine brothers and sisters in good health, with the exception of the eldest brother, who is insane. Her mother is in poor health, said to be suffering from some heart trouble.

### DENVER OPHTHALMOLOGICAL SOCIETY.

Meeting December 18, 1900. Dr. W. C. Bane in the Chair.

Dr. Patterson exhibited a man, 23 years of age, with the following history: During the past four years he had been unable to read for more than five or ten minutes, owing to pain in his eyes. There was no blurring of print. The patient was wearing O. D. and O. S.  $+0.50 \text{ C} +0.25 \text{ cyl. av. } 90 \text{ deg.}$  The vision in each eye was  $\frac{5}{8}$  with glasses. On testing the visual acuity he complained that the letters gradually became smaller and faded away. The accommodation was markedly lowered, being equal to type .50 D at 10 inches. The pupils were widely dilated and contracted very slowly to strong daylight stimulus. There was normal muscle balance and the ophthalmoscopic examination shows a normal fundus in each eye. Eleven years ago the patient had necrosis of his right tibia, which had been cured by a surgical operation. He had also lost the greater portion of his cartilaginous nasal septum. There was no history of syphilis and he did not use alcohol or tobacco. The urine was negative and there was no evidence of disease of the brain or cord. The family history was good. His parents, two brothers and two sisters are living and in good health. The patient had been treated by the administration of iodide of soda and the instillation of eserine.

*Discussion.*—Dr. Edward Jackson thought there was some fault of the nuclei of the third nerve shown by dilatation of the pupils and the loss of accommodation. The cause was probably due to specific taint. Dr. Melville Black advised placing the patient on specific treatment, preferably by inunctions of mercury.

Dr. Melville Black exhibited a woman, 35 years of age, a seamstress by occupation, who had an attack of choroiditis eight years ago. After several months treatment by a prominent oculist she had been discharged with vision O. D.  $\frac{5}{12}$ , O. S.  $\frac{5}{8}$ . There had been no failure of

vision during the past eight years. During this time she had consulted several oculists and had been advised by all not to resume sewing or she would lose her sight. At present there was no active choroiditis, though the fundus everywhere shows marked evidences of old choroidal inflammation. The patient was very anxious to resume her trade of dress-making and he saw no reason why she should not be allowed to do a reasonable amount of needlework.

*Discussion.*—Dr. Edward Jackson thought a patient with choiroiditis not active but in a cicatricial stage could use their eyes in working, under supervision, as there was no inflammatory condition present. In active choroiditis rest should be observed.

Dr. Black presented a patient with a piece of steel in his lens shown at the November meeting of the society. There has been no increase in the lens' opacity during the four weeks.

Dr. Black also exhibited a colored man, aged 35 years, with subacute glaucoma of his left eye. The first attack began October 1, 1900. When first seen by Dr. Black, one day ago, vision was reduced to counting fingers at one foot. The pupil was dilated and did not respond to light. The cornea was steamy and the tension was  $+2$ . The ophthalmoscope showed excavation of the disc, but there was no atrophy of the nerve. Under the repeated use of eserine the vision had risen to  $\frac{5}{8}$ . Dr. Black considered this case a good one for the excision of the superior cervical ganglion of the sympathetic nerve, and he proposed doing this operation on the side of the eye affected in a few days.

*Discussion.*—Dr. Edward Jackson said he would prefer to do an iridectomy instead of excising the ganglion, in the case of the patient shown by Dr. Black. He believed the former operation to be the older and better established.

Drs. Nagel, Patterson and Bane believed an iridectomy in subacute glaucoma to be the more conservative and safer operation.

Dr. Stevens believed the removal of the superior cervical ganglion of the sympathetic nerve was advisable in this case. It would aid in establishing the value of the operation. He thought little benefit would result from this operation in those cases of glaucoma where marked inflammatory and atrophic changes had taken place.

Dr. W. C. Bane presented a boy, aged eight years, who had been struck in the right eye with a stone. There had been rupture of the

iris and secondary hemorrhage. The vision in the injured eye had risen from counting fingers to  $\frac{5}{6}$ .

Dr. Edward Jackson presented a card specimen showing irregular contraction of the blood vessels in a case of simple grey atrophy of the optic nerve. He said the pathology of this irregular narrowing had never been satisfactorily worked out, and it is of great interest to know what share the vessels have in producing atrophy of the nerve. In quinine atrophy there was first a circulatory disturbance preceding by hours or days any microscopical changes in the nerve fibers. The question was whether primary optic atrophy was due to changes in the blood vessels themselves.

Dr. Melville Black believed primary optic nerve atrophy was very rare, and physicians should be very cautious regarding the diagnosis of this form of atrophy from the use of the ophthalmoscope alone.

*Binocular Loupe.*—Dr. Jackson showed a set of the binocular stereoscopic lenses of Emile Berger, which have within the last few months attracted attention in Europe. He pointed out their essential resemblance to the lenses which he had introduced five years ago and which had been quite widely used in this country. The Berger lens was in no way superior to its American predecessor, and in some respects was distinctly inferior.

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#### SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

Regular meeting, November 15, 1900. Dr. Henry L. Wagner, President.

*Zonular Cataract; Rickets.* Dr. F. B. Eaton presented a girl, aged 16, with zonular cataracts, who had had for some time headaches along with progressive loss of vision, which, however, had always been defective. She also complained of headaches, but her health is otherwise good. As an infant her mother states that the patient, with other children, had been considered rickety by a physician.

Examination shows beautiful and typical zonular cataracts centered in the upper and inner portions of each pupil, and occupying the whole of the left (undilated) pupil. The ophthalmoscope shows nothing abnormal in either fundus save blanket-red hyperaemia. The teeth

have the appearance of seaminess transversely, not necessarily indicative of rickets, and he could not exclude at this time syphilis. It is necessary also to be on one's guard against the possible coexistence of diabetes. He had not yet had an opportunity to test the urine. He had tentatively ordered the iodid.

Dr. G. P. Pond asked Dr. Eaton whether, after putting the patient on a specific treatment with some benefit following, he would be justified in deciding that there is specific trouble.

Dr. Eaton replied that he had omitted some of the history. In the right eye there is a vision of  $\frac{2}{7}$  nearly; in the left  $\frac{2}{7}$ . The corneal astigmatism in each eye is 1.50 dioptré, and she accepts R. only 1.00 sphere, and L. +0.50s  $\bigcirc$  0.75c. axis 160, vision with these lenses being R.  $\frac{3}{8}$  L.  $\frac{3}{8}$  nearly. The patient's sight had diminished in the last two or three months. He asked whether it was not possible for the patient to have had rickets and lues also. He would not call the teeth "Hutchinson's" teeth, and that is why he had asked whether improvement under specific treatment would indicate a specific taint. A good many patients will improve under iodid, but that does not justify specific disease.

Dr. J. H. Philip asked if there was a history of miscarriage on the part of the mother.

Dr. Eaton: "Not before the patient's birth, but since, one."

Dr. Pond said the teeth were not the kind of Hutchinson's teeth he had seen. He had seen a number of cases during the last few years. They were decidedly notched in the top of the tooth—a sort of saw tooth.

Dr. A. B. McKee would have hardly said these are Hutchinson's teeth had not Dr. Eaton spoke of it. The characteristic form is the peculiar "peg" shape, which means the loss of the corners; it is not necessary that they come to a sharp point, and he had sometimes found the central surface concave. If there are any characteristics in the patient's teeth, they belong to the rickety type, and not to the Hutchinson type. The patient has also the high arched palate, and a rather narrow chest.

Dr. Redmond Payne saw all the marks of rickets on the patient. Dr. McKee had mentioned the formation of the chest, high arched palate, and formation of the teeth. Zonular cataracts have other con-

ditions generally, which are developed before birth, and they are all congenital, and an arrest of development as continued after birth as well as in other parts of the body. He saw nothing suggestive of specific taint, and he did not therefore see why iodid should be used except as a tonic. He thought that such a case can be improved by improving the nutrition, and thus improving the general nutrition of the lens.

Dr. Eaton, closing the discussion, said that the question of the appearance of the teeth did not appear to him to be the exact indication which some of the gentlemen present favored. He had yet to hear of anything that is exactly typical of the so-called Hutchinson's teeth. It has even been denied that Hutchinson's teeth are really reliable indications of specific disease. The idea, he thought, was wrong that Hutchinson's teeth always have one particular appearance. The patient's teeth are not of that type. He also thought with those who had spoken, that the teeth indicate rickets. He had had the father of the patient, however, under his care about a year before, and found him a dissipated man. This was one reason why he had ordered the iodid. He would refer to Noyes' Diseases of the Eye (1890), page 361, where a cut taken from the cast of the teeth of a young woman who had never had keratitis, and there had never been syphilis, scrofula or rickets in the family for three generations. The picture closely resembles the teeth of the patient.

Regular meeting, December 20, 1900. Dr. Henry L. Wagner, President, in the chair.

Dr. Eaton presented a patient, a man aged 35, upon whom he had done an *Advancement of the Left Internal Rectus* for a divergent strabismus. In 1893, or seven years ago, he was operated upon for left internal strabismus of 25 degrees. Both interni were tentomized at one sitting, but the operator had done only a moderate operation on the right. The cosmetic effect had been satisfactory at first, but gradually external strabismus had come on, which finally reached 25 degrees.

Patient was wearing R. +2.25s + 1.50c., ax. 60 deg.; L. +4.00s. Vision R.;  $\frac{20}{xx}$ ; L.  $\frac{20}{1xx}$ . Tropometer gave: R. up 30 deg.; down, 55 deg.; in, 44 deg.; out, 45 deg. L. up, 30 deg.; down, 55 deg.; in, 32 deg.; out, 45 deg. The left internus thus only showing any defect.

The ideal treatment theoretically, hence, would be advancement of the left internus, with subsequent advancement of the right internus.

It was explained to the patient that time would be saved by advancement of the right internus with simultaneous tenotomy of the left externus. The latter was decided upon, and some encouragement given that binocular vision would be attained, provided the vision of the left eye could be improved.

During the operation care was taken not to disturb the tissues overlying the muscle, and muscle, capsule and conjunctiva were included in the sutures.

The immediate effect of the operation was an over-effect of about 15 degrees. Patient was kept in bed with both eyes bandaged for five days.

While it is too soon to predict the exact final result, the maintenance of a slight overeffect at the end of three weeks with double images promises well. The vision of the left eye had been brought up by correction of astigmatism and stereoscopic exercises to nearly  $\frac{3}{4}$ .

Dr. Eaton believed that the principle laid down that a tenotomy or advancement of a given muscle should be followed by a similar operation on the same muscle of the fellow eye should be adhered to whenever possible, and especially when the restoration of binocular vision is to be, as it should, the object.

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#### OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, DECEMBER 13, 1900.

C. Anderson Critchett, M. A., F. R. C. S. E., President, in the chair. (Clinical evening.)

Mr. J. H. Fisher. A case of *Congenitally Imperfect Separation of the Iris from the Back of the Cornea*. The patient was a woman, aged 27, who had been treated recently at the London Hospital for an attack which appeared to be one of acute or sub-acute glaucoma. On examination the whole anterior surface of the left iris was pitted. At the outer and lower part there was a wide adhesion of the iris to the back of the cornea, while on the inner side it was adherent to a less extent. Mr. Fisher worked out the refraction under homatropine with the

result that the tension rose to  $+1$ . There was pain and the pupil remained dilated, although that of the right eye had regained its normal condition the next day. He considered this case threw some light on congenital glaucoma, as the position of the iris here clearly was the cause of the increased tension.

Mr. W. T. Lister. *Large Dermoid Tumor on the Cornea of an O.x.* In this specimen there was a large growth on the cornea and sclera from which grew a bunch of long hairs.

Mr. C. Brockshank James. *A Rare Example of Persistent Pupillary Membrane.* The patient was a child, aged 8. She was brought on account of a convergent squint. She is one of a family of four, none of the others having any eye affection. When 16 months of age there was a slight inflammatory attack which lasted a few days only. In the right eye there is a convergence of 40. The iris is of a pale, grayish-yellow color. The normal pupil is occupied by strands which enclose several openings. In the left pupil there are some small tags of pupillary membrane with good vision in the eye and 5D of H. In the affected eye the vision is extremely bad and the projection is good.

Mr. James also showed a boy, aged 11, who with his H corrected had normal vision. In the fundus there was a large pigmented area below the disc which had a crescent. The pigment was mostly under the vessels, but near the disc they dipped into it. There was also a strand of persistent pupillary membrane. Mr. James referred to some cases shown by Mr. Sydney Stephenson which had somewhat similar changes.

Mr. A. Stanford Morton. *Growth on Cornea.* This was a boy, aged 7, who was first seen in August. At the upper corneal margin there was a yellowish spot 4 mm. in diameter. It was not raised above the corneal margin and it extended downwards to about the margin of the undilated pupil. He tried to shave it off, but failed to do so. He then transfixed it and entered a space full of yellowish material which he scraped out. It was found on examination to consist of connective tissue with some elastic fibers, but no fat. On the deep surface of the part removed was some cellular material in which there appeared to be a few giant cells, but there was nothing typical of tubercle. It certainly was not congenital and it continues to spread, but very slowly.

Mr. Nettleship referred to a case he had seen with Mr. Bickerton which was somewhat similar, and here after a time it ceased to grow.

Mr. Goldsmith also referred to a somewhat similar case.

Mr. A. H. Thompson. *Superficial Choroidal Atrophy* without subjective symptoms in a member of a family subject to night blindness. The patient was a woman who made no complaint of her vision, which was found on testing to be  $\frac{6}{6}$  in one eye and  $\frac{6}{6}$  in the other. The macula were normal and the fields full. In each eye there was a large area of choroidal atrophy; there was, however, no night blindness nor diminished light sense. This patient's father had difficulty in seeing objects, though he could see to read small print, and there are several members of the family who suffer from night blindness.

The President had found that many of these people found very great assistance from wearing glasses of a golden yellow tint, and he thought that the cutting off of the violet rays by glasses of this color might be the explanation of this, although it did not help every one.

Mr. Eldridge Green thought it would be interesting to see if this patient saw with the macula as quickly as a person with normal sight. He had tried the golden yellow glasses and in a dim light he at first saw better with them, but after wearing them for some time he certainly saw no worse when he removed them.

Mr. Tempest Anderson discussed the use of yellow glass used in the photographic camera when taking a picture of the sky and clouds.

Dr. W. C. Rockliffe. *Conjunctival Growth. Pinguecula.* This patient, aged 12, was first seen in August. The mother stated that at birth a small red pimple was noticed at the outer side of the left cornea and it has slowly spread since then. A crescentic pigmented thickening surrounded the outer third of the cornea, which was 2 mm. in thickness. It was freely movable with the cornea and had no deep attachment so that a probe could be passed beneath it. It had not enlarged to an appreciable extent during the last three months. There was a tubercular history, but a piece he had removed for examination had not yet been reported on. The fundus was normal and the vision  $\frac{6}{6}$ . Dr. Rockliffe stated that he did not think it malignant and he mentioned a similar case shown to the society by Dr. W. J. Collins. In the Ophthalmic Review for October is an abstract of a paper by La Grange, in which he states his belief that they are usually of a dermoid nature, but they contain hairs, whereas in this case no hairs were present. Dr. Rockliffe stated his intention of dissecting it out.

Mr. B. Marcus Gunn. *Tubercle Beneath the Ocular Conjunctiva.* The patient was a girl, aged 13, beneath whose conjunctiva of the left eye near the cornea was a vascular growth. She has tubercular glands but there was no family history of tubercle.

Mr. J. H. Fisher. *Sarcoma of the Conjunctiva.* The patient was a man, aged 28, who had been invalided out of the army on account of the eye. In May of last year he first noticed a small red spot which grew and was removed in February of this year. It was removed again in May and also in August for recurrence. There is now a flat yellowish-brown mass which is smooth on the surface and vascular. About 1-5 of the cornea is covered, but the vision is good. There is no glandular enlargement and no specific history. Mr. Fisher proposed to remove the eye with the growth, as partial operations had been proved to be useless.

Mr. C. Blair. *An Unusual Case of Choroiditis.* The patient was a woman whose sight had been affected for about three months and was now J20. There is an area of closely packed choroiditis with almost an entire absence of pigment. The patches are not raised and the field of vision is defective. The vitreous is full of opacities, but there was no specific nor tubercular history.

Mr. Jessop always looked upon these cases of vitreous opacities as being syphilitic and thought that this case was really of that nature.

Mr. C. O. Hawthorne also mentioned a case.

Mr. W. T. Holmes Spicer. *Naevus of the Orbit.* The patient was a married woman, who when seen in July, 1898, had some proptosis of the left eye, due to a vascular tumor. In August of that year he did electrolysis without any immediate result. In January, 1899, he again electrolyzed it. She became pregnant and during this time it increased greatly in size. A hard mass was then felt and on cutting into this it was found to be an old blood cyst. Shortly after the cornea ulcerated and the eye was excised.

Mr. Spicer then sent the patient to Dr. Lewis Jones, who considered that owing to the apparent free communication of the growth with the cavernous sinus, electrolysis was not safe.

Mr. Frost suggested that pressure might be beneficial.

The President thought that the growth had better be left alone, owing to the danger of cutting into so vascular a tumor.

C. DEVEREUX MARSHALL.

## NEWS ITEMS.

*Personally the items of interest should be sent to  
Dr. Frank Allport, 92 State St., Chicago.*

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Dr. W. Alvan Hitchcock has been appointed Ophthalmic Surgeon in the Boston Dispensary.

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Dr. William R. Powell has been elected Ophthalmologist to the Cooper Hospital of Camden, N. J.

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Dr. John W. Croskey, attending surgeon to the Wills Eye Hospital, has resigned and Dr. McCluney Radcliffe has been appointed his successor.

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Dr. John E. Weeks has been appointed Professor of Ophthalmology at the University and Bellevue Hospital Medical College, to succeed the late Dr. Henry D. Noyes.

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WANTED—A male medical graduate interested in eye, ear, nose and throat work to officiate as assistant in a Chicago office. No salary for the first year, but ample experience. Address the *Ophthalmic Record*.

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At the last meeting of the Medical Society of the State of New York the following papers were read:

"Esophoria, or Latent Squint," by Francis Valk, New York; "Changes in the Crystalline Lens During Accommodation," by Lucien Howe, Buffalo; "Tuberculosis of the Iris," by W. F. Mittendorf, New York; "Can Interstitial Keratitis Be Prevented in the Offspring of Syphilitic Parents?" by Peter A. Callan, New York.

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The New York Ophthalmic and Aural Institute, which has been in existence since 1869, was, on Jan. 2, presented by Dr. Herman Knapp with the freehold of the buildings at present occupied by it, namely,

Nos. 44 and 46 East Twelfth street, on the south side of the street, a little over a hundred feet west of Broadway. The two buildings have been remodeled to serve the needs of the institution.

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Tests in Eyesight of School Pupils.—Some highly interesting information has been gleaned by Dr. Ramasawmy Ivengar, the government oculist in Mysore, in the course of the tests he is engaged in making of the eyesight of the pupils attending the various schools in Bangalore. His report on the qualitative tests of the eyesight of the pupils of the Central College has convinced the Mysore government of the desirability of taking a census of the character of the eyesight of the pupils in all schools and colleges in the province. Dr. Ramasawmy examined 171 pupils of the high school classes and 162 students of the college branch of the Bangalore Central College, and he found that 71 per cent of the former and 82 per cent of the latter were affected and abnormal vision, and that the eyesight of the students undergoes greater deterioration as they advance in their studies. Dr. Ramasawmy also tested 177 pupils, boys and girls, Europeans and Eurasians, of the St. Andrew's High Schools, and he reports that both the higher and more injurious forms of short sight and of "flat eyes" were less common among them than in the Central College, which contains 99 per cent of Hindoos. He is of opinion that the better eyesight of the European boys is probably due to their better surroundings and their love for out-door sports.—*Indian Medical Record*.

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William B. Munde, architect of the Board of Education of Chicago, Ill., takes issue with F. W. Smedley, supervisor of the child study department, concerning the poor eyesight of children in the public schools. Dr. Smedley placed some of the blame for defective vision on the poor light in the school buildings. Mr. Munde holds that poorly printed books and home conditions are more responsible for defective vision than any other causes. Mr. Munde says:

"The report of Dr. Smedley, supervisor of child study for the Board of Education, wherein he states that out of 4,765 tests for ocular defects in the children of our public schools 32 percent of boys have less than two-thirds of normal keenness of sight and 37 percent of girls fall below this two-thirds of normal, is somewhat of a surprise to me.

"To those who read hastily this causes presumption on their part

that the defective vision comes from the improper lighting of schoolrooms, and the architect is blamed for an affliction that is certainly a very grievous one.

"It seems to me a gross absurdity to say that the short period of actual study in the schoolroom, even in an improper light, should be charged as the major cause of defective vision. I consider the typographical imperfections of school books and the additional educational curriculum entailing longer hours of study one of the chief causes of defect. But publishers will use worn stereotype plates to swell profits, and poor paper and small print to keep down the price and enter into competition. To adopt such books is poor economy on the part of any school board, and in a city as large as ours our board can require publishers to look well to these points, even if it should cost a few cents more.

"Another chief cause, probably the most serious of all, occurs in the home, where it is beyond the jurisdiction of superintendents and teachers. Parents allow pupils to assume improper attitudes while reading and studying, and fail to provide proper light for the evening tasks, which have to be disposed of while the eye is tired and strained. I consider that the school book publishers and the improper conditions for home study are more responsible for this deterioration of eyesight than the imperfections of schoolrooms or the lack of care on the part of our teachers.

"Our modern schools of the past few years are certainly well lighted buildings. A great deal of attention, based on experiments at home and abroad by eminent authorities on the lighting and ventilation of schoolrooms, has given us set rules varying but slightly in the ratio for proper lighting.

"Now, it is not to be expected that parents of all classes living in houses, flats and tenements of every grade can provide perfect conditions for home study or that they understand how a child should hold a book in a proper light and at a proper distance from the eye. But the school board can insist upon proper school books, and, if results are as bad as the reports show, it is sufficient to require the installation of a competent inspecting oculist, for a while at least, who can in his visits instruct the teachers and children in a few of the fundamental rules to follow in study, point out the things to avoid, such as studying in twilight or on street cars, going to and from school, etc., and get up a proper circular of instructions for each pupil to take home to the parents for their guidance."

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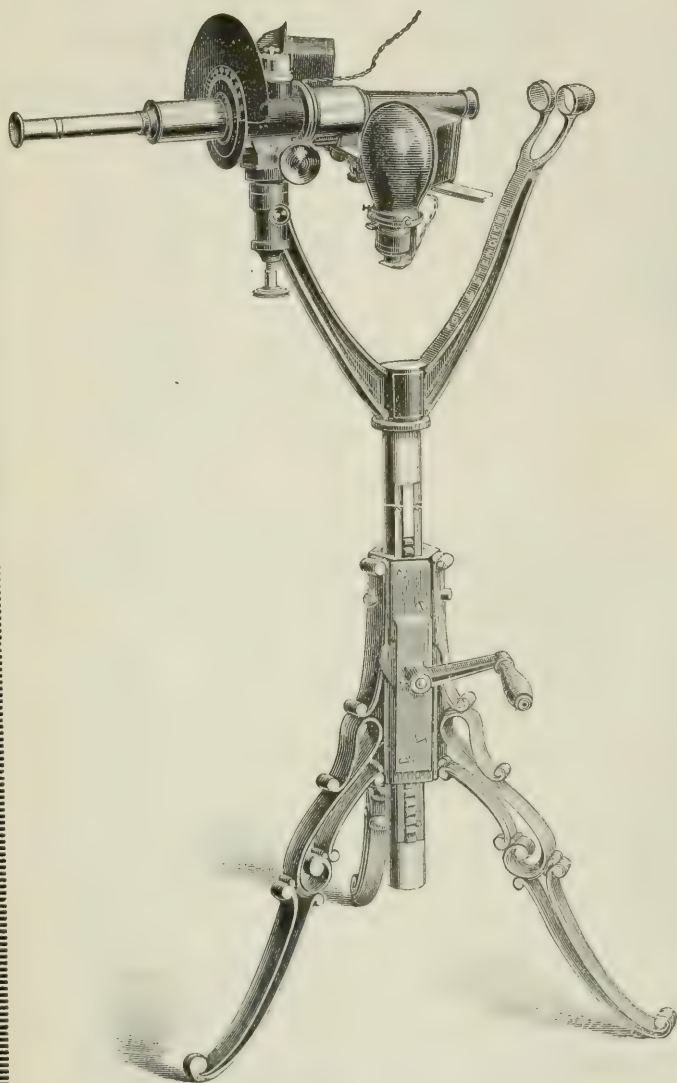
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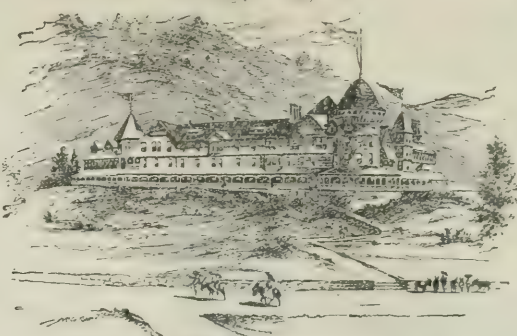
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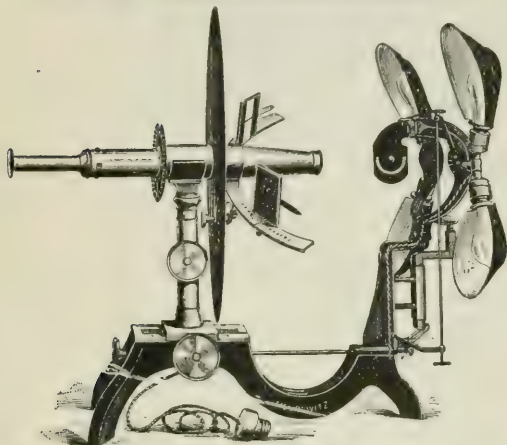
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